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Applicant's name: Henri Duong

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Title of the invention: Back driving automatic brake system & Automatic braking system for equipping in all vehicles, airplanes, ships..

Name of Examiner: Robert A. Siconofli

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(G) Summary of claimed subject matter page(s): 46 pages.

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(I) Argument page(s): 43 pages.

(J) Claims appendix page(s): 11 pages.

(K) Evidence appendix page(s): "none".

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Applicant's name: Henri Duong

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And a Court/the Board

(D) Related appeals and interferences page(s): 1 page.

Appellant states that this Appeal Brief is related to Notices of Appeal filed on 04/11/08 and 07/21/08 under Application no. 10/725,226 filing date: 12/01/2003.

(E) Status of claims page(s): 1 page.

Appellant states that claims 1-3 are being appealed while claims 4-13 were not entered in this application after final rejection and are not under appeal.

(F) Status of amendment page(s): 1 page.

Appellant states that the status of all amendments filed after the final rejection of 12/30/2005 so the after final amendments filed for claims 4-13 have not been entered by the examiner.

(G) Summary of claimed subject matter page(s): 46 pages.

## CLAIMS

Claims 4-13 were not entered in this application after final rejection and are not under appeal.

### Claim 1

What I claim as my invention is : Detectable automatic braking system used for all kinds of motor and engine vehicles, automobiles, cars, trucks, buses, vans, trains, tanks, motorcycles, airplanes, ships..., including:

Referring to the specification by page 2 line 3-5, page 12 line 11-16, drawing FIG. 31-32 and reference paragraph [0007], [0078]:

Means and function:

“Detectable automatic braking system” in its original fundamentals and among its wordings comprising: Detectable automatic braking device/system is installed in motor-vehicle/ transportation having feature for applying brake by itself to halt motor-vehicle running on traveling way whenever it receives the detected result or sensed signal of its front and rear sensors/radars/operative devices detecting or sensing a physical property or an obstruction in detecting zone.

Means as:

Detectable automatic braking system is for installing in all kinds of engine and motor vehicles, automobiles, cars, trucks, buses, vans, trains, tanks, motorcycles, airplanes, ships and others for stopping traffic accident on traveling way.

Referring to claim 1, the specification and drawing as above-cited:

Steps and structural function (1-7) as below:

(1) Detectable automatic braking system;

- (2) Detectable automatic braking system is for installing in all kinds of engine and motor vehicles, automobiles, cars, trucks, buses, vans, trains, tanks, motorcycles, airplanes, ships and others,
- (3) Detectable automatic braking system; having feature for applying brake by itself,
- (4) automatic braking system; receives data/information of sensor(s)/radar(s) to apply brake,
- (5) sensor(s)/radar(s) or detectable device(s),
- (6) sensor(s)/radar(s) or detectable device(s); for detecting at a distance on traveling way, and
- (7) sensor(s)/radar(s) or detectable device(s); detects and responds by detected result or sensed signal against obstruction.

Claim 1, including:

Sensor(s)/radar(s) or detectable devices equipping in the front (top) of vehicle and at its rear (top) part for detecting at a distance between two vehicles or obstruction, radar(s) sending information to switch braking unit on to brake the car automatically to stop its running once obstruction being detected,

Referring to the specification by page 5 line 6-13, drawing FIG. 31 and reference paragraph [0052]:

Means and function:

“Installation of detecting devices” referring to claim 1 in its original fundamentals comprising: Radar(s)/sensor(s) for detecting at a distance is fixed in the front part of motor-vehicle having facility to avert direct lighting flashing on it from opposite running motor-vehicles particularly at night time. Once radar(s)/sensor(s) detects an obstruction on traveling way and reacts switching braking motor on to brake motor-vehicle to stop accident, and other radar(s)/sensor(s) is equipped at rear motor-vehicle and reacts detecting at near distance only if driver backs his motor-vehicle, its has electrical connection of the same function as backing light.

Means as:

Radars/sensors/operative devices are installed on/in motor-vehicle/transportation for front and rear detecting/sensing obstruction on traveling way for stopping traffic accident.



Referring to claim 1, the specification and drawing as above-cited:

Steps and structural function (1-7) as below:

- (1) radar(s)/sensor(s),
- (2) radar(s)/sensor(s); for fixing in the front part of motor-vehicle having facility to avert direct lighting flashing on it,
- (3) braking motor; for rotating to apply brake reacted by radar(s)/sensor(s),
- (4) radar(s)/sensor(s); reacts against obstruction switching braking motor on to brake motor-vehicle automatically to stop traffic accident,
- (5) radar(s)/sensor(s); for equipping at rear motor-vehicle,
- (6) rear radar(s)/sensor(s); reacts detecting at near distance only if driver backs his motor-vehicle, and
- (7) rear radar(s)/sensor(s); having electrical connection of the same function as backing light.

Claim 1, including:

and a (third) radar/sensor equipping in the front of car to detect to sound sonorous alarm or recorded message to driver at the earliest among other radars once obstruction detected by this radar, driver lowering car speed to avert automatic braking, of automatic voice sound.

Referring to the specification by page 11 line 16-19 and reference paragraph [0075]:

Means and function:

“Automatic voice sounding device” referring to claim 1 among its original fundamentals comprising: An extra front radar is equipped in the front part of motor vehicle detecting and connecting device to sound sonorous signal lamp or recorded message to driver at the earliest among these radars once obstruction is detected by this radar on traveling way, driver may lower motor-vehicle speed before automatic braking operates.

Means as:

Automatic voice sounding device is for sounding driver at the earliest to lower motor vehicle speed to avert automatic braking operates on traveling way and extra front radar with

sonorous signal lamp/recorded message device is connected in operation.

Referring to claim 1, the specification and drawing as above-cited:

Steps and structural function (1-8) as below:

- (1) automatic voice sounding device;
- (2) a (third) radar/sensor,
- (3) a (third) radar/sensor; for equipping in the front part of motor vehicle,
- (4) a (third) radar/sensor; for detecting at longest distance,
- (5) a (third) radar/sensor among other radars; for detecting an obstruction and sounding to driver at the earliest,
- (6) a (third) radar/sensor; for connecting sonorous alarm/recorded message device,
- (7) sonorous signal lamp or recorded message device; for sounding driver, and
- (8) driver may lower motor-vehicle speed before automatic braking operates.

## Claim 2

What I claim as my invention is : Detectable automatic braking system equipping in all kinds of motor & engine vehicles, automobiles, cars, trucks, buses, vans, trains, motorcycles, tanks, airplanes, ships..., sensor(s)/radar(s) or detectable devices using to detect and to respond by detected result to braking unit to perform automatic braking action, including:

Referring to the specification by page 2 line 3-5, page 12 line 11-22, drawing FIG. 31-32 and reference paragraph [0007], [0078]:

Means and function:

“Detectable automatic braking system” in its original fundamentals and among its wordings comprising: Detectable automatic braking device/system is installed in motor-vehicle/ transportation having sensors/radars/operative devices front and rear detecting/sensing and responding by detected/sensed result against an obstruction conducting as electrically its braking unit to perform automatic braking on traveling way to stop traffic accident.

Detectable automatic braking system covering its linking parts:

Detectable automatic braking system; comprising front and rear radars/sensors/operative devices, automatic water switch, automatic voice sounding device, automatic lower speed system, detectable automatic alarm system, one(s) of automatic braking units (structures of "Triangle wheel", "Duo" to "Duo-I"), entire braking system network, electrical circuit connection, automatic lock device, automatic releasing unit, automatic brake pedal/pedal/extra brake outlet rod and automatic safety system, for constructing an operative device.

Means as:

Detectable automatic braking system is for equipping in all transportations for stopping traffic accident on traveling way.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-29) as below:

- (1) detectable automatic braking system; for equipping in all transportations for stopping traffic accident on traveling way,
- (2) detectable automatic braking system;
- (3) front radars/sensors/operative devices,
- (4) radars/sensors/operative devices are installed on/in motor-vehicle/transportation for front and rear detecting/sensing at specified distance on traveling way,
- (5) automatic water switch,
- (6) automatic water switch is for stopping as motor-vehicle running sooner on wet against obstacle on traveling way under connection of raining water for conducting electric wires of second front sensor/radar of longer distance detection and those of automatic braking unit,
- (7) automatic voice sounding device,
- (8) automatic voice sounding device is for sounding driver at the earliest to lower motor vehicle speed to avert automatic braking operates on traveling way and extra front radar, sonorous signal lamp/recorded message device are connected in operation,
- (9) automatic lower speed system,
- (10) automatic lower speed system is for lowering motor vehicle speed safely under

- connection of third front sensor(s)/radar(s)/detectable device(s) detecting at longest distance and reacting against obstruction to apply automatic braking on traveling way and releasing while radar(s)/sensor(s) detects free,
- (11) detectable automatic alarm system,
- (12) detectable automatic alarm system is for safe driving in which small sensors/radars/detectable devices are equipped at both sides of a motor-vehicle detecting and connecting sonorous alarm device to sound driver as lamp(s) showing on indicator; right/left in detection once running motor-vehicles extremely approach each other on traveling way,
- (13) detectable automatic alarm system is for safe driving in which extra sensors/radars/detectable devices are equipped on right & left mirror sides of motor-vehicle for as back detecting and connecting signal lamp switch/signal lamp while turning on with sonorous (signal) alarm sounding driver if rear motor-vehicle is detected,
- (14) automatic braking unit,
- (15) automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone,
- (16) entire braking system network,
- (17) network showing entire braking system functioning and operating on (FIG. 31),
- (18) electrical circuit connection,
- (19) an electrical circuit connection of automatic braking device on (FIG. 32),
- (20) automatic lock device,
- (21) lock device is installed for locking the brake firmly or its relating part to maintain braking during which automatic braking is operating just after switch turns brake motor off, and braking unit/electric motor is used for rotating a braking object to apply brake against pedal,
- (22) automatic releasing unit,
- (23) automatic releasing unit is installed for releasing the brake by unlocking lock device by as cable drawing by mini-motor wheel automatically or driver switch button manually releasing the brake under spring force just after sensor(s)/radar(s) detects free,

- (24) automatic brake pedal/new pedal/extra brake outlet rod,
- (25) automatic brake pedal/new pedal/extra brake outlet rod; as object or means for operating braking,
- (26) automatic safety system,
- (27) automatic safety system is for proving Detectable automatic braking system in operation in one's motor-vehicle/transportation in which color sonorous signal lamp/message recorder is "on" showing to driver while entire system is "off" in electric installation,
- (28) constructing an operative device, and
- (29) constructing an operative device of the invention(s) comprising being constructed in any electrical, technical and mechanical ways of an operative device(s) comprising interacting in its logical order.

Claim 2, including:

Braking by pressing or pulling function, new pedals, rubber boot, safety covers, braking positions against extra brake outlets, automatic braking pedals for proper automatic braking use without causing movement of vehicle pedal, using their main parts wherein or movement of any other equipments, instruments having braking effect; using movement of force by motor, by air, by wind, by spring, by energy, of air hydraulic/oxygen (unit), of air/liquid pump, of cylinder as nut & piston as bolt with induction coils., braking objects including wheels, spindle, axis, rod, oscillator moving frame, bracket drive and any other objects with same effect, using sensors or any other wire/wireless detectable devices; radars, infrared (detector) lenses, detectors, electronic eyes, lighting sensors, motion sensor detectors, sensor video cameras., having heating effect against snow, accessories.

Referring to the specification by page 10 line 9-27, drawing FIG. 35-40 and reference paragraph [0071], [0072]:

Means and function:

"Automatic brake pedal/new pedal and installation of materials" referring to claim 2 among its original fundamentals comprising: Automatic brake pedal is made having the same axis of vehicle pedal equipping for proper automatic braking use without causing movement of

vehicle pedal and new pedal with protection cover for pedal movement both using for braking use, extra brake rod outlet is particularly made and used independently for performing automatic braking, using movement of force for braking comprises any movement by any force or energy with any equipment/instrument producing braking result, and using wire/wireless detectable devices of any operative ones for detecting, as cited in the specification and claims.

Means as:

Automatic brake pedal/pedal or extra brake rod outlet is for automatic braking use, braking movement can be made by any movement of force or energy, braking object is among any objects producing braking result, any wire/wireless detectable devices for detecting/sensing and responding by detected result, and parts to interact for constructing an operative device.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-33) as below:

- (1) braking by pressing or pulling function,
- (2) braking by pressing or pulling function; any usable operation to perform braking comprising by pressing or pulling effect,
- (3) new pedals,
- (4) new pedal; any operative pedal usable for braking use,
- (5) automatic braking pedal,
- (6) automatic braking pedal for proper automatic braking use without causing the movement of vehicle pedal,
- (7) pedal safely covers and/or pedal rubber boot,
- (8) pedal safely cover or pedal rubber boot; for protection of pedal movement,
- (9) extra braking rod outlet besides original booster/master cylinder,
- (10) extra braking rod outlet; for using particularly to perform automatic braking,
- (11) braking positions,
- (12) braking positions; comprising any position for performing braking on it,
- (13) braking is used any equipments or instruments having braking effect,

- (14) braking using movement of force by motor,
- (15) braking using movement of force by air,
- (16) braking using movement of force by wind,
- (17) braking using movement of force by spring,
- (18) braking using movement of force by energy,
- (19) braking using movement of force of air hydraulic/oxygen (unit),
- (20) braking using movement of force of air/liquid pump,
- (21) braking using movement of force of cylinder as nut & piston as bolt with induction coils  
or
- (22) braking using movement of force by/of others,
- (23) braking objects include wheels, spindle, axis, rod, oscillator moving frame, bracket drive  
and/or
- (24) braking object includes any other objects with same effect,
- (25) using wire/wireless detectable device as radar,
- (26) using wire/wireless detectable device as sensor,
- (27) using wire/wireless detectable device as infrared (detector) lenses,
- (28) using wire/wireless detectable device as detector,
- (29) using wire/wireless detectable device as electronic eye,
- (30) using wire/wireless detectable device as lighting sensor,
- (31) using wire/wireless detectable device as motion sensor,
- (32) using wire/wireless detectable device as video camera, or
- (33) using wire/wireless detectable device as others, having heating effect against snow, parts.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts braking motor rotating triangle wheel to its edge point pressing at the opposite side of upper pedal to brake, braking locked by iron switches of motor to its inner triangle wheel, brake released by switch device and spring force, of triangle wheel structure.

Referring to the specification by page 5 line 22-26, page 6 line 1-4 drawing FIG. 1-2, 32 and reference paragraph [0054]:

Means and function:

“Automatic braking unit” as “triangle wheel” structure referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, sensor(s)/ radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to switch braking motor on rotating triangle wheel to its edge point pressing at pedal to brake and braking is locked by as three iron switches of motor inside motor at position to turn motor off prior to locking at edge points of an inner triangle wheel or similar locking device at braking position, where brake is to be released by driver button switching motor on rotating at the same spin or opposite spin and spring force; a ball bearing with pin is fixed firmly at the surface of wheel nearby its flat part corner where a spring is fixed from pin to a moving ball of motor frame pulling wheel at the right position after each spin so as to unlock the brake pedal. We fix brake motor between two strong springs to support its spin and motor is linked with arm at its end to frame letting motor move at its specific position.

Means as:

Automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of its sensors/radars/ operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-23) as below:

- (1) triangle wheel structure;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted



by sensor(s)/radar(s)/detectable device(s),

(6) triangle wheel; as object rotating to press on pedal,

(7) pedal; for braking use,

(8) triangle wheel; is equipped to/by motor rotating to its edge point pressing pedal to brake,

(9) iron switches of motor; for turning motor off and locking inner wheel,

(10) inner triangle wheel; for being locked by iron switch,

(11) iron switches inside motor; for turning motor off prior to locking,

(12) braking; is locked by iron switches inside motor to its inner triangle wheel or

(13) similar locking device at braking position,

(14) switch device,

(15) brake; is to be released by driver button and spring force,

(16) driver button; for switching motor on rotating at the same/opposite spin,

(17) spring force; a ball bearing with pin is fixed firmly at the surface of wheel nearby its flat part corner where a spring is fixed from pin to a moving ball of motor frame pulling wheel at the right position after each spin so as to unlock the brake pedal,

(18) a ball bearing with pin is fixed firmly at the surface of wheel nearby its flat part corner,

(19) a spring; for fixing from pin to a moving ball of motor frame pulling wheel at the releasing position,

(20) a frame; for fixing a braking motor on it,

(21) two support springs,

(22) supporting springs; for fixing braking motor supporting it on braking movement, and

(23) arm; motor is fixed with an arm at its end to frame letting motor move at specific position.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts braking motor rotating triangle wheel to its edge point pressing at the opposite side of upper pedal to brake, braking locked by lock device of motor to bracket arm of triangle wheel, brake released by driver's button and spring force, of triangle wheel structure Duo.

Referring to the specification by page 6 line 5-11, drawing FIG. 3-5 and reference paragraph [0055]:

Means and function:

“Automatic braking unit” as triangle wheel structure “Duo” referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, sensor(s)/ radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to switch braking motor on rotating triangle wheel to its edge point pressing on pedal part to brake and braking is locked by motor lock device to bracket arm of triangle wheel at braking position after motor is turned off by switch, where brake is to be released by driver’s button rotating wheel to iron bar blockaded at wheel bracket and spring force; motor is linked with a spring to pull triangle wheel by its pin rotating a ball bearing for back spin, motor is fixed between two supporting springs ending with an arm to the frame.

Means as:

Automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-25) as below:

- (1) triangle wheel structure “Duo”;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) triangle wheel; as object rotating to press on pedal,
- (7) pedal; for braking use,

- (8) triangle wheel; for equipping to/by motor rotating to its edge point pressing pedal to brake,
- (9) lock device; for locking to maintain braking,
- (10) bracket arm; for locking by lock device,
- (11) switch,
- (12) switch; for turning motor turned off prior to locking,
- (13) braking; is locked by motor lock device to bracket arm of triangle wheel at braking position,
- (14) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (15) brake; is to be released by driver's button and spring force,
- (16) so wheel rotates to iron bar blocked at wheel bracket,
- (17) iron bar; for blocking to wheel bracket,
- (18) wheel bracket; for blocking to iron bar,
- (19) spring; for drawing back at position,
- (20) ball bearing; for facilitating its pin at movement,
- (21) spring force; motor is linked with a spring to pull triangle wheel by its pin rotating a ball bearing on back spin,
- (22) two support springs,
- (23) supporting springs; for fixing braking motor supporting it on braking movement,
- (24) a frame; for fixing a braking motor on it, and
- (25) arm; motor is fixed with an arm at its end to frame letting motor move at specific position.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts braking motor rotating triangle wheel to its edge point pressing at the opposite side of upper pedal to brake, braking locked by lock device of motor to bracket arm of wheel, brake released by driver's button and rewind spring or using double spinning motor, of triangle wheel structure Du.

Referring to the specification by page 6 line 12-19, drawing FIG. 6-10 and reference paragraph

[0056]:

Means and function:

“Automatic braking unit” as triangle wheel structure “Du” referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, sensor(s)/ radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to switch braking motor on rotating triangle wheel to its edge point pressing on pedal to brake, braking is locked by motor lock device to wheel bracket arm after motor turned off by switch, where brake is to be released by driver’s button drawing to rotate motor back to blockade wheel arm to motor bar and rewind spring or using double spinning motor, driver's button is drawn on releasing and wheel bracket will be locked at switch device turning motor off at back spin, motor ending with arm is fixed by two springs in a frame.

Means as:

Automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-26) as below:

- (1) triangle wheel structure “Du”;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) triangle wheel; as object rotating to press on pedal to brake,
- (7) pedal; for braking use,
- (8) triangle wheel; for equipping to/by motor rotating to its edge point pressing pedal to brake,

- (9) lock device; for locking to maintain braking,
- (10) bracket arm; for locking by lock device,
- (11) switch,
- (12) switch; for turning motor turned off prior to locking,
- (13) braking; is locked by motor lock device to bracket arm of triangle wheel during braking,
- (14) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (15) wheel arm; for blocking to motor bar,
- (16) motor bar; for blocking to wheel arm,
- (17) motor rewind spring; for rewinding motor at back spin,
- (18) brake; is to be released by driver's button drawing to rotate motor back to blockade wheel arm to motor bar and rewind spring or
- (19) using double spinning motor,
- (20) using double spinning motor, driver's button is drawn on releasing and
- (21) wheel bracket; is to be locked at switch device turning motor off at back spin,
- (22) switch device,
- (23) two support springs,
- (24) supporting springs; for fixing braking motor supporting it on braking movement,
- (25) a frame; for fixing a braking motor on it, and
- (26) arm; motor is fixed with an arm at its end to frame letting motor move at specific position.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis fixing between center and rim of a round wheel, rotating at wheel summit pushing on pedal part to brake, braking locked by lock device of motor to bracket arm of wheel, brake released by driver's button and rewind spring or using double spinning motor, of round wheel structure Duo-A.

Referring to the specification by page 6 line 20-27, page 7 line 1, drawing FIG. 11-12 and

reference paragraph [0057]:

Means and function:

“Automatic braking unit” as round wheel structure “Duo-A” referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, sensor(s)/ radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to operate brake motor whose axis is fixed between center and rim part of a round wheel rotating wheel at its summit spin pushing on pedal part to brake, where braking is locked by motor lock device to wheel bracket arm after motor is turned off by switch, brake is to be released by driver’s button and motor rewind spring at back spin or using double spinning motor; one spin to brake and the other spin to release by driver’s button rotating motor wheel to switch off, motor is fixed between two supporting springs and holds an arm moving at specific position in the frame.

Means as:

Automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-25) as below:

- (1) round wheel structure “Duo-A”;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) round wheel; as object rotating to press on pedal,
- (7) motor axis,

- (8) motor axis is fixed between center and rim part of a round wheel,
- (9) pedal; for braking use,
- (10) motor wheel; rotates at its summit pushing on pedal part to brake,
- (11) lock device; for locking to maintain braking,
- (12) bracket arm; for locking by lock device,
- (13) switch,
- (14) switch; for turning motor turned off prior to locking,
- (15) braking; is locked by motor lock device to wheel bracket arm,
- (16) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (17) motor rewind spring; for rewinding motor at back spin,
- (18) brake; is to be released by driver's button and motor rewind spring at back spin or
- (19) using double spinning motor,
- (20) using double spinning motor; one spin to brake and the other spin to release by driver's button rotating motor wheel to switch off/using button,
- (21) an off-switch; for turning motor off or using switch button instead,
- (22) two support springs,
- (23) supporting springs; for fixing braking motor supporting it on braking movement,
- (24) a frame; for fixing a braking motor on it, and
- (25) arm; motor is fixed with an arm at its end to frame letting motor move at specific position.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis fixing between center and rim of a round wheel, rotating at wheel summit pushing on pedal part to brake, braking locked by lock devices of motor to its inner wheel, brake released by driver's contact and spring force, of round wheel structure Duo-a.

Referring to the specification by page 7 line 2-10, drawing FIG. 13-14 and reference paragraph [0058]:

Means and function:

“Automatic braking unit” as round wheel structure “Duo-a” referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to operate brake motor whose axis is fixed between center and rim part of a round wheel rotating wheel at its summit spin pushing on pedal part to brake, where braking is locked by motor lock device to locking holes on first/second line of two holes each of inner wheel depending motor off spin during braking after motor is turned off by switch, brake is to be released by driver’s button on rotating releasing and spring force; a ball bearing with pin is fixed firmly at the surface edge of round wheel where a spring is fixed from pin to a moving ball of motor frame pulling the wheel at right position to unlock the brake, single spin motor is equipped in a frame with springs to support its movement.

Means as:

Automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-25) as below:

- (1) round wheel structure “Duo-a”;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s)/detecting device(s); for detecting obstacle and switching brake motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) round wheel; as object rotating to press on pedal,
- (7) motor axis fixing between center and rim part of a round wheel,
- (8) pedal; for braking use,



- (9) motor wheel; rotates at its summit pushing on pedal part to brake,
- (10) lock device; for locking to maintain braking,
- (11) inner wheel; having first/second line of two holes each,
- (12) switch,
- (13) switch; for turning motor turned off prior to locking,
- (14) braking; is locked by motor lock device to locking holes on first/second line of two holes each of inner wheel depending motor off spin,
- (15) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (16) spring force; for springing back releasing,
- (17) brake; is to be released by driver's button on rotating releasing and spring force,
- (18) spring; for drawing back at position,
- (19) ball bearing; for facilitating its pin at movement,
- (20) moving ball; for holding spring at movement,
- (21) spring force; a ball bearing with pin is fixed firmly at the surface edge of round wheel where a spring is fixed from pin to a moving ball of motor frame pulling the wheel at right position to unlock the brake,
- (22) a frame; for fixing a braking motor on it,
- (23) supporting springs,
- (24) supporting springs; for fixing braking motor supporting it on braking movement, and
- (25) a frame; for equipping single spin motor on it.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor; its toothed spindle engaging through gear-nut of frame screwing out pressing on pedal part to brake, braking locked by lock device, released by driver's button and slotted spindle spring force or spring linked to frame, of screw & unscrew structure Duo-B.

Referring to the specification by page 7 line 11-18, drawing FIG. 15-16 and reference paragraph [0059]:

Means and function:

“Automatic braking unit” as screw & unscrew structure “Duo-B” referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to operate brake motor whose toothed spindle engages through outlet gear-nut of spring supporting frame screwing out pressing on pedal part or automatic brake pedal to brake, where braking is locked by lock device after motor is turned off by switch, brake is to be released by driver’s button and spring force; spindle slots into spring before inserting to gear-nut or motor ending spring being linked to frame. If double rotating motor is used, driver’s contact is to release and a switch may be added letting back spinning motor off.

Means as:

Automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-19) as below:

- (1) screw & unscrew structure “Duo-B”;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor with a toothed spindle; as method for braking, having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) gear-nut of spring supporting frame; for holding motor letting spindle moving through it,
- (7) brake motor toothed spindle engages through outlet gear-nut of spring supporting frame,
- (8) pedal or automatic brake pedal; for braking use,
- (9) brake motor toothed spindle screws out through frame outlet gear-nut pressing on pedal

part to brake,

(10) lock device; for locking to maintain braking,

(11) switch,

(12) switch; for turning motor turned off prior to locking,

(13) braking; is locked by lock device,

(14) driver's button; for switching motor spin and/or drawing to unlock lock device,

(15) brake; is to be released by driver's button and spring force,

(16) spring force; spindle slots into spring before inserting to gear-nut or

(17) spring force; motor ending spring being linked to frame or

(18) double rotating motor is used; one spin to brake, the other spin to release, and

(19) driver's contact; is to release double rotating motor or with a switch for turning motor off.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis engaging a tube outlet of frame with grooved end part rotated by a gear of motor, moving axis pressing on pedal part to brake, braking locked by lock device, released by driver's button and spring, of axis-gear structure Duo-C.

Referring to the specification by page 7 line 19-27, drawing FIG. 17-18 and reference paragraph [0060]:

Means and function:

"Automatic braking unit" as axis-gear structure "Duo-C" referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to operate brake motor, an axis with grooved end part rotated by a gear of motor through a frame tube outlet pressing on pedal part to brake, where braking is locked by lock device after motor is turned off by switch, brake is to be released by driver's button and spring force; motor rewind spring, spring linking at end axis to the frame or rewind spring of automatic

brake pedal, if we use double revolving motor, releasing is by driver's contact and switch is for turning motor off at back spin, we install motor between supporting springs.

Means as:

Automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-21) as below:

- (1) axis-gear structure "Duo-C";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) pedal; for braking use,
- (7) axis with grooved end part; for braking to press on pedal,
- (8) axis with grooved end part rotated by a gear of motor through a frame tube outlet pressing on pedal part to brake,
- (9) lock device; for locking to maintain braking,
- (10) switch,
- (11) switch; for turning motor turned off prior to locking,
- (12) braking; is locked by lock device,
- (13) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (14) brake; is to be released by driver's button and spring force,
- (15) spring force; motor rewind spring for rewinding motor at back spin or
- (16) spring force; spring linking at end axis to the frame or

- (17) spring force; rewind spring of automatic brake pedal or
- (18) double rotating motor is used; one spin to brake, the other spin to release,
- (19) driver's contact; is to release brake on double rotating motor at back spin, or with a switch for turning motor off,
- (20) supporting springs, and
- (21) supporting spring; spring(s) for fixing braking motor supporting it on braking movement.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis fixing between center and rim of a round wheel with connecting rod, pressing to an extra outlet built from brake original booster/master cylinder to brake, braking locked by lock device and released by driver's button using revert spring force at back spin, of extra outlet structure Duo-D.

Referring to the specification by page 8 line 1-9, drawing FIG. 19-20 and reference paragraph [0061]:

Means and function:

"Automatic braking unit" as extra outlet structure "Duo-D" referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to operate brake motor with a round wheel, an axis is fixed between center and rim part of the round wheel with a connecting roller rod linking to an extra brake outlet rod under spring force built from original booster/master cylinder pressing onto it to brake, where braking is locked by lock device after motor is turned off by switch and brake is to be released by driver's button drawing unlock lock device under outlet rod revert spring force or driver's button is used for a right & left spinning motor being fixed with support spring.

Means as:

Automatic braking unit is installed having feature for applying brake by itself to halt motor-

vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-22) as below:

- (1) extra outlet structure "Duo-D";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) round wheel; its center and rim part is fixed with an axis of motor,
- (7) an axis; for fixing with round wheel,
- (8) an axis is fixed between center and rim part of the round wheel with a connecting roller rod linking to an extra brake outlet rod under spring force pressing onto it to brake,
- (9) an extra brake outlet rod built from original booster/master cylinder; for braking use,
- (10) pedal; for braking use,
- (11) lock device; for locking to maintain braking,
- (12) switch,
- (13) switch; for turning motor turned off prior to locking,
- (14) braking is locked by lock device,
- (15) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (16) brake; is to be released by driver's button drawing unlock lock device and spring force,
- (17) spring force; under outlet rod revert spring force at motor back spin or
- (18) spring force; motor rewind spring at motor back spin, or
- (19) double rotating motor is used; one spin to brake, the other spin to release,
- (20) driver's contact; is to release brake on double rotating motor at back spin,
- (21) supporting spring, and

(22) supporting springs; for fixing braking motor supporting it on braking movement.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts oscillator moving the frame, on which an extra outlet with hose, connecting rod kit in air releasing spring unit placing with ball bearing centered to a wheel, pressing to a rubber cover wheel manufactured as a part of double pulley rotated by car engine to brake, braking locked by lock device, released by driver's contact, of moving frame structure Duo-E.

Referring to the specification by page 8 line 10-17, drawing FIG. 21-22 and reference paragraph [0062]:

Means and function:

"Automatic braking unit" as moving frame structure "Duo-E" referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to operate oscillator to forward or backward move a frame on which an extra outlet rod links roller pin with a connecting rod kit in air releasing spring unit which has a pin roller to center and rim part of a wheel centered ball bearing in the frame that the wheel will connect (to brake) and disconnect (to release) pressing to a rubber cover wheel manufactured as a part of double pulley rotated by vehicle engine to brake, where braking is locked by lock device and brake is to be unlocked releasing by driver's contact, using fluid hose for moving adaptation.

Means as:

Automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-19) as below:

- (1) moving frame structure "Duo-E";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); operates oscillator to move a frame,
- (5) a frame; on where braking unit is installed for moving against engine pulley to brake,
- (6) oscillator,
- (7) an extra outlet rod; for braking use,
- (8) roller pin; for holding two parts on spin,
- (9) ball bearing; for holding two parts on spin,
- (10) a connecting rod kit in air releasing spring unit; for moving forward or backward on braking or releasing,
- (11) an extra outlet rod links roller pin with a connecting rod kit in air releasing spring unit which has a pin roller to center and rim part of a wheel centered ball bearing in the frame
- (12) round wheel; for braking and releasing on spin,
- (13) a rubber cover wheel manufactured as a part of double pulley; for linking between engine and moving frame,
- (14) the wheel; will connect (to brake) and disconnect (to release) pressing to a rubber cover wheel manufactured as a part of double pulley rotated by vehicle engine to brake,
- (15) lock device; for locking to maintain braking,
- (16) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (17) braking; is locked by lock device to be unlocked releasing by driver's contact,
- (18) hose; for fluid use, and
- (19) using fluid hose; for moving adaptation.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to drive a rectangular bracket pressing on pedal part to brake, braking locked by lock device, released by driver's button and spring force, of bracket drive structure Duo-F.



Referring to the specification by page 8 line 18-24, drawing FIG. 23-24 and reference paragraph [0063]:

Means and function:

“Automatic braking unit” as bracket drive structure “Duo-F” referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to switch support spring motor on driving its rectangular bracket between two springs for linking both ends of motor frame and bar with a pin moving in its frame cavity that bar outer part presses against pedal part or automatic brake pedal to brake, where braking is locked by lock device after motor is turned off by switch and spring force releases reacted by driver’s button.

Means as:

Automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-18) as below:

- (1) bracket drive structure “Duo-F”;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) support springs; springs for fixing braking motor supporting it on braking movement,
- (7) a frame with cavity; for letting pin of bar moving in it,
- (8) bar with a pin; for holding in frame on movement,

- (9) rectangular bracket; for driving to apply brake,
- (10) springs; for springing back at position,
- (11) pedal; for braking use,
- (12) braking motor drives its rectangular bracket between two springs for linking both ends of a motor frame and bar with a pin moving in its frame cavity that bar outer part pressing against pedal part or automatic brake pedal to brake,
- (13) switch,
- (14) switch; for turning motor turned off prior to locking,
- (15) lock device; for locking to maintain braking,
- (16) braking; is locked by lock device,
- (17) driver's button; for switching motor spin and/or drawing to unlock lock device, and
- (18) spring force; for releasing reacted by driver's button.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to rotate its bar pressing on pedal part to brake, inner wheel locked by lock device inside motor during braking, released by driver's button and rewind spring, of direct spin structure Duo-G.

Referring to the specification by page 8 line 25-27, page 9 line 1-3, drawing FIG. 25-26 and reference paragraph [0064]:

Means and function:

"Automatic braking unit" as direct spin structure "Duo-G" referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to switch spring supporting motor on rotating its bar pressing on pedal part or automatic brake pedal to brake, inner wheel is locked by lock device inside motor during braking after motor is turned off by switch, where brake is to be released by driver's button and motor rewind spring, if a double rotating motor is used at back spin and released by contact or with an off-switch.

Means as:

Automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-19) as below:

- (1) direct spin structure "Duo-G";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) support springs; for fixing braking motor supporting it on braking movement,
- (7) bar; for fixing with motor axis,
- (8) pedal; for braking use,
- (9) motor bar; rotates by motor pressing on pedal or automatic brake pedal to brake,
- (10) switch,
- (11) switch; for turning motor turned off prior to locking,
- (12) lock device; for locking to wheel,
- (13) inner wheel; for locking by lock device,
- (14) inner wheel inside motor; for locking by lock device during braking,
- (15) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (16) motor rewind spring; for rewinding motor at back spin,
- (17) brake; is to be released by driver's button and motor rewind spring, or
- (18) double rotating motor; one spin to brake, the other spin to release, and
- (19) double rotating motor is used at back spin and released by contact or with an off-switch.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to rotate its oval wheel pressing on pedal part to brake, wheel locked by lock device, released by driver's button and rewind spring, of oval wheel structure Duo-H.

Referring to the specification by page 9 line 4-9, drawing FIG. 27-28 and reference paragraph [0065]:

Means and function:

"Automatic braking unit" as oval wheel structure "Duo-H" referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to switch spring supporting motor on rotating its oval wheel pressing on pedal or automatic brake pedal to brake, the wheel has a bracket arm to blockade itself at motor iron bar, wheel is locked by lock device during braking after motor is turned off by switch, driver's button is drawn to release with rewind spring force, if a double rotating motor is used at back spin and released by contact or with an off-switch.

Means as:

Automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-20) as below:

- (1) oval wheel structure "Duo-H";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking

motor on,

(5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),

(6) support springs; for fixing braking motor supporting it on braking movement,

(7) oval wheel; for use rotating to brake,

(8) pedal; for braking use,

(9) motor; rotates its oval wheel pressing on pedal or automatic brake pedal to brake,

(10) switch,

(11) switch; for turning motor turned off prior to locking,

(12) bracket arm; for blocking to bar,

(13) iron bar; for blocking to bracket arm,

(14) lock device; for locking to maintain braking,

(15) the wheel; has a bracket arm to blockade itself at motor iron bar and wheel is locked by lock device during braking,

(16) driver's button; for switching motor spin and/or drawing to unlock lock device,

(17) motor rewind spring; for rewinding motor at back spin,

(18) brake; is to be released by driver's button and motor rewind spring or

(19) double rotating motor; one spin to brake, the other spin to release, and

(20) double rotating motor is used at back spin and released by contact or with an off-switch.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to rotate its hexagonal wheel pressing on pedal part to brake, inner wheel locked by lock device inside motor during braking, released by driver's button and rewind spring, of hexagonal wheel structure Duo-I.

Referring to the specification by page 9 line 10-16, drawing FIG. 29-30 and reference paragraph [0066]:

Means and function:

“Automatic braking unit” as hexagonal wheel structure “Duo-I” referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to switch spring supporting motor on rotating its hexagonal wheel pressing on pedal part or automatic brake pedal to brake, the wheel has a bracket arm to blockade itself at motor iron bar, inner wheel is locked by lock device inside motor during braking after motor is turned off by switch, driver’s button is drawn to release with rewind spring force, if a double rotating motor is used at back spin and released by contact or with an off-switch.

Means as:

Automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-21) as below:

- (1) hexagonal wheel structure “Duo-I”;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) support springs; for fixing braking motor supporting it on braking movement,
- (7) hexagonal wheel; for use as object rotating to brake,
- (8) pedal; for braking use,
- (9) motor rotates its hexagonal wheel pressing on pedal or automatic brake pedal to brake,
- (10) switch,
- (11) switch; for turning motor turned off prior to locking,

- (12) bracket arm; for blocking to bar,
- (13) iron bar; for blocking to bracket arm,
- (14) lock device; for locking to maintain braking,
- (15) inner wheel; for locking by lock device,
- (16) the wheel; has a bracket arm to blockade itself at motor iron bar and inner wheel is locked by lock device during braking,
- (17) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (18) motor rewind spring; for rewinding motor at back spin,
- (19) driver's button is drawn to release with rewind spring force or
- (20) double rotating motor; one spin to brake, the other spin to release, and
- (21) double rotating motor at back spin; for releasing by contact or with an off-switch.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts both functioning of motor braking and pressing button standby of mini-motor which will rotate to draw lock device resulting from earlier pressing action releasing the brake automatically just after radar(s) detecting free, of automatic releasing process.

Referring to the specification by page 10 line 1-4 and reference paragraph [0069]:

Means and function:

“Automatic releasing process” referring to claim 2 among its original fundamentals comprising: Once sensor(s)/radar(s) or detectable device(s) is installed on/in transportation to detect an obstruction on traveling way and react both operating of motor braking and pressing button standby of mini-motor which will rotate to draw lock device resulting from earlier pressing action releasing the brake unit automatically just after radar(s) detects free.

Means as:

Automatic releasing unit is installed for releasing the brake by unlocking lock device by as cable drawing by mini-motor wheel or driver switch button releasing the brake under spring

force just after sensor(s)/radar(s) detects free automatically or manually.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-9) as below:

- (1) automatic releasing process;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); switches on both operating of motor braking and pressing button standby of mini-motor,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) button of mini-motor; electric button to turn motor on/off,
- (7) mini-motor; for drawing to unlock lock device,
- (8) lock device; for locking to maintain braking, and
- (9) mini-motor; for rotating to draw lock device resulting from earlier pressing action releasing the brake automatically just after radar(s) detects free,

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein brake motor be fixed between supporting springs, appropriate motor rotating at a speed to brake a car fast enough to stop its running, if using motor spinning at both sides: one side to brake and the other side to release at low speed replacing spring force, in which switch turning brake motor off prior to braking and locking, lock; pushing a bracket over edge point of a bar/rod under spring force be blockade in device and releasing by cable drawing opposite side of rod, of lock device.

Referring to the specification by page 9 line 20-26, drawing FIG. 9, 20, 38 and reference paragraph [0068]:

Means and function:

“Braking motor and lock device” referring to claim 2 among its original fundamentals



comprising: Brake motor is fixed between supporting springs in which appropriate motor is used rotating to brake at a speed efficiently fast to halt transportation/motor-vehicle running, if motor spinning at both sides is used; one spin to brake and the other to release at low speed replacing spring force, switch turns brake motor off prior to braking and locking in lock device, lock device; it has a bar/rod under spring force for pushing it over edge point of an opposite bracket of locking part being blocked in it as locking and one end of rod linked to cable to be released by drawing.

Means as:

Lock device is installed for locking the brake firmly or its relating part to maintain braking during which automatic braking is operating just after switch turns brake motor off, and braking unit/electric motor is used for rotating a braking object to apply brake against pedal.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-11) as below:

- (1) brake motor; for rotating to apply brake,
- (2) supporting springs; for fixing braking motor supporting it on braking movement,
- (3) brake motor; is fixed between supporting springs,
- (4) appropriate motor; for rotating at appropriate speed,
- (5) appropriate motor is used rotating to brake at a speed efficiently fast to halt transportation/motor-vehicle running,
- (6) motor spinning at both sides; motor rotating at right and left side,
- (7) if motor spinning at both sides is used; one spin to brake and the other to release at low speed replacing spring force,
- (8) switch,
- (9) switch; for turning brake motor off prior to braking,
- (10) lock device; for locking to maintain braking, and
- (11) lock device; it has a bar/rod under spring force for pushing it over edge point of an opposite bracket of locking part being blockaded in it as locking and one end of rod linked to cable to be released by drawing.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein automatic water switch equipped to be connected by raining water between electric wires to turn on second sensor in the front of car for detecting at a longer distance to earlier stop car running on wet, drying water by wind to extinguish the function of second sensor/radar after raining over, of automatic water switch.

Referring to the specification by page 11 line 6-11, drawing FIG. 42 and reference paragraph [0074]:

Means and function:

“Automatic water switch” referring to claim 2 among its original fundamentals comprising: Automatic water switch is installed in transportation/motor-vehicle to be connected by raining water as in an open box/container between electric wires of second front sensor/radar of longer distance detection and those of automatic braking unit for earlier stopping motor-vehicle running on wet when it rains to turn radar on in which the plastic box/container has a level outlet let water flow down and the wind will blow drying water to extinguish the function of radar after raining is over.

Means as:

Automatic water switch is for stopping transportation/motor-vehicle running sooner on wet against obstacle on traveling way under connection of raining water for conducting electric wires of second front sensor/radar of longer distance detection and those of automatic braking unit.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-7) as below:

- (1) automatic water switch;
- (2) an open box/container has a level outlet; where electric wires to be conducted by raining water,
- (3) electric wires; for conducting sensor/radar and automatic braking unit,

- (4) sensor/radar; for detecting at longer distance,
- (5) automatic braking unit; for applying brake by itself,
- (6) a level outlet of the plastic box/container; for letting water flow down in full, and
- (7) the wind will blow drying water to extinguish the function of radar after raining is over.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, the third sensor/radar automatically reacts both motor braking and mini-motor drawing to unlock lock device to brake and to release while radar(s) detecting free to lower car speed safely at a longer distance, or using a second braking unit without lock for third sensor/radar, in which a revert timer be installed to switch off third sensor/radar for certain minutes letting cars approach closer during heavy traffic, of automatic lower speed system.

Referring to the specification by page 11 line 20-25 and reference paragraph [0076]:

Means and function:

“Automatic lower speed system” referring to claim 2 among its original fundamentals comprising: Once obstruction being detected on traveling way, third sensor/radar is installed on/in motor-vehicle/transportation to operate both motor braking to brake by lowering motor vehicle speed safely at a longer distance and mini-motor drawing to unlock lock device releasing while radar(s)/sensor(s) detects free, or a second braking unit without lock is used for third sensor/radar, in which a revert timer is installed to switch third sensor/radar off for certain minutes letting motor-vehicles approach closer during heavy traffic.

Means as:

Automatic lower speed system is for lowering motor vehicle speed safely under connection of third front sensor(s)/radar(s)/detectable device(s) detecting at longest distance and reacting against obstruction to apply automatic braking on traveling way and releasing while radar(s)/sensor(s) detects free, and a revert timer is for letting motor-vehicles approach closer during heavy traffic.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-11) as below:

- (1) automatic lower speed system;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) third sensor(s)/radar(s) or detectable device(s); for detecting at longest distance,
- (4) braking motor; for rotating to apply brake,
- (5) mini-motor; for drawing to unlock lock device releasing brake,
- (6) lock device; for locking to maintain braking,
- (7) third sensor(s)/radar(s) or detectable device(s); for detecting an obstacle and operating both motor braking to brake by lowering motor vehicle speed safely at a longer distance and mini-motor drawing to unlock lock device releasing while radar(s)/sensor(s) detects free or
- (8) a second braking unit without lock,
- (9) a second braking unit without lock; for interacting with third sensor/radar,
- (10) a revert timer; for turning third sensor/radar off for certain moment, and
- (11) a revert timer; for switching third sensor/radar off for certain time letting motor-vehicles approach closer during heavy traffic.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein color signal sonorous lamp or recorded message being “on” showing to driver while entire braking system being “off”, driver may switch off the entire system by a driver’s contact when necessary or driver finding impossible to balance his car on ice-covered road if braking operating, in which installing a thermostat to disconnect color signal sonorous lamp in winter snow, of automatic safety system.

Referring to the specification by page 11 line 1-5, drawing FIG. 32, 34 and reference paragraph [0073]:

Means and function:

“Automatic safety system” referring to claim 2 among its original fundamentals comprising:  
Color signal sonorous lamp or recorded message is “on” showing to driver while entire

braking system is “off”, driver may switch off the entire system by a driver’s contact when necessary or driver finds impossible to balance his motor-vehicle on ice-covered road if braking operating, in which a thermostat is installed to disconnect color signal sonorous lamp/message recorder in winter snow.

Means as:

Automatic safety system is to prove Detectable automatic braking system in operation in one’s motor-vehicle/transportation in which color sonorous signal lamp/message recorder is "on" showing to driver while entire system is "off" in electric installation.

Referring to claim 2, the specification and drawing as above-cited:

Steps and structural function (1-9) as below:

- (1) automatic safety system;
- (2) color signal sonorous lamp or recorded message recorder,
- (3) color signal sonorous lamp/recorded message recorder; is connected for sounding driver,
- (4) entire braking system; of Detectable automatic braking device,
- (5) color signal sonorous lamp or recorded message is “on” showing to driver while entire braking system is “off”,
- (6) contact; for switching system on/off,
- (7) contact for driver to switch the entire system off when necessary,
- (8) thermostat; for reacting to operate by temperature of climate, and
- (9) a thermostat; for disconnecting color signal sonorous lamp/message recorder in winter snow.

Claim 2, including:

Detectable automatic braking system referring to claim 1 & 2 and Automatic stop lamp system, Detectable automatic (alarm) systems in claim 3 wherein the original elements, composition, function, structures, process of making, contents, illustrations, installation, of the invention in these documents, any other structures, modifications, replacement of parts assembling to make up the same systems or to perform similar devices referring to their

original fundamentals to the same effect and combining the invention with any other devices or systems using other names are in the scope of the protection of the invention, the invention be used everywhere.

Referring to the specification by page 13 line 1-6, and reference paragraph [0080]:

Means and function:

The basis of inventing and materializing Detectable automatic braking system and the invention in these documents referring to claim 1-3 covering the scope of the protection of the invention among their original fundamentals and wordings comprising: the original elements, composition, function, structures, process of making, contents, illustrations, installation, of the invention in these documents, any other structures, modifications, replacement of parts assembling to make up the same systems or to perform similar devices referring to their original fundamentals to the same effect and combining the invention with any other devices or systems using other names are in the scope of the protection of the invention, the invention be used everywhere.

Means as:

Since the basis of automatic braking device is invented, it covers any electrical, technical and mechanical methods of any structures being built for making up any operative device of the same invention based on the invented basis comprising a part/the whole of it under the scope of the protection of the invention and the invented basis covers as well any replacement of parts/process being assembled beyond/among those created structures for constructing any operative device having the same/similar outcome.

Referring to claim 2, the specification and drawing as above-cited:

Means, steps and structural function (1-37) as below:

- (1) the original elements of the invention,
- (2) the original elements of the invention; comprising any electrical, technical & mechanical methods being constructed for making up any operative device(s) based on the invented elements of the invention comprising a part/the whole,

- (3) composition of the invention,
- (4) composition of the invention; comprising any materials, parts, energy, similarity and necessity for constructing an operative device of the invention,
- (5) function of the invention,
- (6) function of the invention; comprising operating the invention in any ways, operating it separately and/or in combination, operating electrically, by any energy, technically and mechanically in its logical order,
- (7) structures of the invention,
- (8) structures of the invention; comprising constructing any operative device of the same invention beyond/among those created structures and/or any structures for constructing any operative device having the same/similar outcome of the invention,
- (9) process of making of the invention,
- (10) process of making of the invention; comprising the created process of making and/or any process of making for constructing any operative device of the same invention,
- (11) contents of the invention document,
- (12) contents of the invention; comprising putting its contents into practice,
- (13) illustrations of the invention,
- (14) illustrations of the invention; comprising materializing the illustrations into practice,
- (15) installation of the invention,
- (16) installation of the invention; comprising any electrical, technical & mechanical methods being installed for making up the operative device,
- (17) any other structures,
- (18) any other structures; comprising any other different structures being constructed for making up any operative device based on the invented basis of the invention comprising a part/the whole,
- (19) modifications of the invention,
- (20) modifications of the invention; any modifications comprising addition/reduction part/unit for making up operative device(s) based on the invented basis of the invention comprising a part/the whole,
- (21) the original fundamentals of the invention,

- (22) the original fundamentals of the invention; comprising any operative methods in electrical, technical & mechanical fields being constructed for making up any operative device(s) based on the invented fundamentals of the invention comprising a part/the whole, and the said invention is written and claimed describing in any other wordings, languages and forms based on the invented fundamentals,
- (23) the invention,
- (24) the invention; comprising the invention is carried out in any ways, and the said invention is written and claimed describing in any other wordings, languages and forms based on the invented fundamentals under the scope of the protection of the invention,
- (25) replacement of parts,
- (26) replacement of parts; being assembled to make up the same systems or to perform similar devices referring to their original fundamentals operating to the same effect,
- (27) any other devices or systems,
- (28) any other devices or systems; comprising microprocessor, programmer, computer, using satellite operating network and/or others,
- (29) combining,
- (30) combining the invention with any other devices or systems using other names,
- (31) using other names; comprising any names,
- (32) the scope of the protection of the invention,
- (33) the scope of the protection of the invention; besides lawful protection, comprising any operation affecting the interest of the invention,
- (34) the invention be used,
- (35) the invention be used; comprising the specific and extra uses of the invention(s),
- (36) the invention be used everywhere and
- (37) the invention be used everywhere; comprising using the invention everywhere as desirable.

### Claim 3

What I claim as my invention is : Automatic stop lamp system for traffic light including:



Extra lamp(s) equipped for traffic light at a position to focus its beam at lighting zone limit on red to stop cars advancing on red that its beam has capacity to react function of Detectable automatic braking system on sensor(s)/radar(s) of front cars,

Referring to the specification by page 12 line 23-28, drawing FIG. 43 and reference paragraph [0079]:

Means and function:

The basis of inventing and materializing “automatic stop lamp system” among its original fundamentals comprising: Extra lamp(s)/bulb(s) is equipped connecting to traffic light at a position to focus its beam at lighting zone limit on red to stop motor-vehicles advancing on red that its beam has capacity to react operation of Detectable automatic braking system of sensor(s)/radar(s) of front motor-vehicles.

Means as:

Automatic stop lamp system is for safely controlling motor-vehicles on red light without letting them pass lighting zone limit.

Referring to claim 3, the specification and drawing as above-cited:

Steps and structural function (1-5) as below:

- (1) automatic stop lamp system;
- (2) extra lamp(s)/bulb(s); for focusing its beam at sensor(s)/radar(s) of front motor-vehicles to react operation of Detectable automatic braking devices,
- (3) lamp beam has capacity to react sensor(s)/radar(s) in operation,
- (4) traffic light, and
- (5) extra lamp(s)/bulb(s); for equipping to connect traffic light at a position to focus its beam at lighting zone limit on red to stop motor-vehicles advancing on red.

Claim 3, including:

and Detectable automatic alarm system using for all kinds of motor and engine vehicles, automobiles, cars, trucks, buses, vans, trains, motorcycles, airplanes, ships.,

including:

Referring to the specification by page 11 line 26, page 12 line 1-2 and reference paragraph [0077]:

Means and function:

The basis of inventing and materializing “Detectable automatic alarm system” among its original fundamentals comprising: Detectable automatic alarm system is equipped for all kinds of engine and motor vehicles, automobiles, cars, trucks, buses, vans, trains, motorcycles, airplanes, ships and others.

Claim 3, including:

Small sensor(s)/radar(s) or detectable devices equipping at both sides of a car to sound sonorous alarm or recorded message to driver, indicator showing color signal lamp: right or left side be detected once running cars extremely approaching each other,

Referring to the specification by page 12 line 7-10 and reference paragraph [0077]:

Means and function:

The basis of inventing and materializing “Detectable automatic alarm system” referring to claim 3 among its original fundamentals comprising: Small sensors/radars or detectable devices are equipped at both sides of a motor-vehicle connecting device to sound sonorous alarm or recorded message to driver and indicator showing color signal lamp; right or left side is detected on traveling way once running motor-vehicles extremely approach each other.

Means as:

Detectable automatic alarm system is for safely driving for detecting at both sides of motor-vehicle on traveling way under connection of sensors/radars/detectable devices, sonorous alarm device to sound driver once running motor-vehicles extremely approach each other.

Referring to claim 3, the specification and drawing as above-cited:

Steps and structural function (1-6) as below:

- (1) detectable automatic alarm system;
- (2) sensors/radars or detectable devices,
- (3) sensors/radars or detectable devices; for detecting at both sides of a motor-vehicle,
- (4) device of sonorous alarm or recorded message; for sounding driver,
- (5) indicator showing color signal lamp, and
- (6) color signal lamps shown on indicator; right or left side is detected of sensors/radars or detectable devices.

Claim 3, including:

and extra sensors/radars or detectable devices equipping on right & left mirrors of cars for back detecting during turning, sonorous (signal) alarm or voice sounding to driver (on indicator) if rear car being detected by radar at a distance while signal lamp being on.

Referring to the specification by page 12 line 3-6 and reference paragraph [0077]:

Means and function:

The basis of inventing and materializing “Detectable automatic alarm system” referring to claim 3 among its original fundamentals comprising: Extra sensors/radars or detectable devices are equipped on right & left mirror sides of motor-vehicle for back detecting during turning connecting signal lamp switch with sonorous (signal) alarm or voice device sounding driver (on indicator) if rear motor-vehicle is detected by radar at a distance while signal turning lamp is on.

Means as:

Detectable automatic alarm system is for safely driving for detecting on right & left mirror sides of motor-vehicle for as back detecting on traveling way under connection of sensors/radars/detectable devices, signal lamp/switch and sonorous (signal) device to sound driver if rear motor-vehicle is detected

Referring to claim 3, the specification and drawing as above-cited:

Steps and structural function (1-6) as below:

- (1) detectable automatic alarm system;
- (2) extra sensors/radars or detectable devices,
- (3) extra sensors/radars or detectable devices; for as back detecting during turning being equipped on right & left mirror sides of motor-vehicle/transportation,
- (4) sonorous (signal) alarm or voice device; for sounding driver,
- (5) signal lamp/switch; for connecting during turning, and
- (6) extra sensors/radars or detectable devices are connected signal lamp switch with sonorous (signal) alarm or voice device sounding driver (on indicator) if rear motor-vehicle is detected by radar at a distance while signal turning lamp is on.

(H) Grounds of rejection to be reviewed on appeal page(s): 11 pages.

## DETAILED ACTION

### 1. Claim rejections - 35 USC 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-3 are rejected as failing to define the invention in the manner required by 35 USC 112, second paragraph. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only.

- Appellant presents in this section the concise statement of the subject matter along with its claim(s) as required by 37 CFR 41.37 (c)(1)(vi) as:

The concise statement of the subject matter is regarded as applicant's invention is presented for review as in claim 1:

"Detectable automatic braking system" in its original fundamentals and among its wordings comprising: Detectable automatic braking device/system is installed in motor-vehicle/ transportation having feature for applying brake by itself to halt motor-vehicle running on traveling way to stop traffic accident whenever its interacting front and rear sensors/radars/ operative devices detects or senses a physical property or an obstruction in detecting zone.

"Detectable automatic braking system" referring to claim 1 in which "Automatic voice sounding device" among its original fundamentals comprising: Automatic voice sounding device is for sounding driver at the earliest to lower motor vehicle speed to avert automatic braking operating on traveling way, which extra front radar and sonorous signal lamp/ recorded message device are connected in operation.

### Claim 1

What I claim as my invention is : Detectable automatic braking system used for all kinds of motor and engine vehicles, automobiles, cars, trucks, buses, vans, trains, tanks, motorcycles, airplanes, ships..., including:

Sensor(s)/radar(s) or detectable devices equipping in the front (top) of vehicle and at its rear (top) part for detecting at a distance between two vehicles or obstruction, radar(s) sending information to switch braking unit on to brake the car automatically to stop its running once obstruction being detected,

and a (third) radar/sensor equipping in the front of car to detect to sound sonorous alarm or recorded message to driver at the earliest among other radars once obstruction detected by this radar, driver lowering car speed to avert automatic braking, of automatic voice sound.

The concise statement of the subject matter is regarded as applicant's invention is presented for review as in claim 2:

"Detectable automatic braking system" in its original fundamentals and among its wordings comprising: Detectable automatic braking device/system is installed in motor-vehicle/transportation having its sensors/radars/operative devices front and rear detecting/sensing and responding by detected/sensed result against an obstruction conducting as electrically its braking unit to perform automatic braking on traveling way to stop traffic accident.

Detectable automatic braking system covering its linking parts:

Detectable automatic braking system; comprising front and rear radars/sensors/operative devices, automatic water switch, automatic voice sounding device, automatic lower speed system, detectable automatic alarm system, one(s) of automatic braking units (structures of "Triangle wheel", "Duo" to "Duo-I"), entire braking system network, electrical circuit connection, automatic lock device, automatic releasing unit, automatic brake pedal/new pedal/extra brake outlet rod and automatic safety system, for constructing an operative device.

### Claim 2

What I claim as my invention is : Detectable automatic braking system equipping in all kinds of motor & engine vehicles, automobiles, cars, trucks, buses, vans, trains, motorcycles, tanks, airplanes, ships..., sensor(s)/radar(s) or detectable devices using to detect and to respond by detected result to braking unit to perform automatic braking action, including:

The concise statement of the subject matter is regarded as applicant's invention is presented for review referring to claim 2:

"Detectable automatic braking system" referring to claim 2 in which "Automatic brake pedal/new pedal and installation of materials" among its original fundamentals comprising: Automatic brake pedal/pedal or extra brake rod outlet is for automatic braking use, braking movement can be made by any movement of force or energy, braking object is among any objects producing braking result, any wire/wireless detectable devices for detecting/sensing and responding by detected result, and parts to interact for constructing an operative device.

Claim 2, including:

Braking by pressing or pulling function, new pedals, rubber boot, safety covers, braking positions against extra brake outlets, automatic braking pedals for proper automatic braking use without causing movement of vehicle pedal shown, using their main parts wherein or movement of any other equipments, instruments having braking effect; using movement of force by motor, by air, by wind, by spring, by energy, of air hydraulic/oxygen (unit), of air/liquid pump, of cylinder as nut & piston as bolt with induction coils..., braking objects including wheels, spindle, axis, rod, oscillator moving frame, bracket drive and any other objects with same effect, using sensors or any other wire/wireless detectable devices; radars, infrared (detector) lenses, detectors, electronic eyes, lighting sensors, motion sensor detectors, sensor video cameras..., having heating effect against snow, accessories.

The concise statement of the subject matter is regarded as applicant's invention is presented for review referring to claim 2:

"Detectable automatic braking system" referring to claim 2 in which "Automatic braking unit"

among its original fundamentals comprising: Automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted as electrically by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting or sensing a physical property/an obstruction in detecting zone. (as structures of “Triangle wheel”, “Duo” to “Duo-I”)

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts braking motor rotating triangle wheel to its edge point pressing at the opposite side of upper pedal to brake, braking locked by iron switches of motor to its inner triangle wheel, brake released by switch device and spring force, of triangle wheel structure.

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts braking motor rotating triangle wheel to its edge point pressing at the opposite side of upper pedal to brake, braking locked by lock device of motor to bracket arm of triangle wheel, brake released by driver's button and spring force, of triangle wheel structure Duo.

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts braking motor rotating triangle wheel to its edge point pressing at the opposite side of upper pedal to brake, braking locked by lock device of motor to bracket arm of wheel, brake released by driver's button and rewind spring or using double spinning motor, of triangle wheel structure Du.

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis fixing between center and rim of a round wheel, rotating at wheel summit pushing on pedal part to brake, braking locked by lock device of motor to bracket arm of wheel, brake released by driver's button and rewind spring or using double spinning motor, of round wheel structure Duo-A.

Detectable automatic braking system referring to claim 2, wherein once obstruction



being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis fixing between center and rim of a round wheel, rotating at wheel summit pushing on pedal part to brake, braking locked by lock devices of motor to its inner wheel, brake released by driver's contact and spring force, of round wheel structure Duo-a.

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor; its toothed spindle engaging through gear-nut of frame screwing out pressing on pedal part to brake, braking locked by lock device, released by driver's button and slotted spindle spring force or spring linked to frame, of screw & unscrew structure Duo-B.

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis engaging a tube outlet of frame with grooved end part rotated by a gear of motor, moving axis pressing on pedal part to brake, braking locked by lock device, released by driver's button and spring, of axis-gear structure Duo-C.

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis fixing between center and rim of a round wheel with connecting rod, pressing to an extra outlet built from brake original booster/master cylinder to brake, braking locked by lock device and released by driver's button using revert spring force at back spin, of extra outlet structure Duo-D.

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts oscillator moving the frame, on which an extra outlet with hose, connecting rod kit in air releasing spring unit placing with ball bearing centered to a wheel, pressing to a rubber cover wheel manufactured as a part of double pulley rotated by car engine to brake, braking locked by lock device, released by driver's contact, of moving frame structure Duo-E.

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to drive a rectangular bracket pressing on pedal part to brake, braking locked by lock device, released by driver's button and spring force, of bracket drive structure Duo-F.

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to rotate its bar pressing on pedal part to brake, inner wheel locked by lock device inside motor during braking, released by driver's button and rewind spring of direct spin structure Duo-G.

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to rotate its oval wheel pressing on pedal part to brake, wheel locked by lock device, released by driver's button and rewind spring, of oval wheel structure Duo-H.

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to rotate its hexagonal wheel pressing on pedal part to brake, inner wheel locked by lock device inside motor during braking, released by driver's button and rewind spring, of hexagonal wheel structure Duo-I.

The concise statement of the subject matter is regarded as applicant's invention is presented for review referring to claim 2:

Detectable automatic braking system referring to claim 2 in which "Automatic releasing process" among its original fundamentals comprising: Automatic releasing unit is installed for releasing the brake by unlocking lock device by as cable drawing automatically by mini-motor wheel or driver switch button releasing the brake under spring force just after sensor(s)/radar(s) detects free.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts both functioning of motor braking and pressing button standby of mini-motor which will rotate to draw lock device resulting from earlier pressing action releasing the brake automatically just after radar(s) detecting free, of automatic releasing process.

The concise statement of the subject matter is regarded as applicant's invention is presented

for review referring to claim 2:

Detectable automatic braking system referring to claim 2 in which “lock device” among its original fundamentals comprising: Lock device is installed for locking the brake firmly or its relating part to maintain braking during which automatic braking operates just after switch turns brake motor off, and electric braking motor being fixed under supporting springs has appropriate speed for rotating to apply brake to stop motor-vehicle running.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein brake motor be fixed between supporting springs, appropriate motor rotating at a speed to brake a car fast enough to stop its running, if using motor spinning at both sides: one side to brake and the other side to release at low speed replacing spring force, in which switch turning brake motor off prior to braking and locking, lock; pushing a bracket over edge point of a bar/rod under spring force be blockade in device and releasing by cable drawing opposite side of rod, of lock device.

The concise statement of the subject matter is regarded as applicant’s invention is presented for review referring to claim 2:

Detectable automatic braking system referring to claim 2 in which “automatic water switch” among its original fundamentals comprising: Automatic water switch is for stopping motor-vehicle/transportation running sooner on wet against obstacle on traveling way under connection of raining water for conducting electric wires of second front sensor/radar of longer distance detection and those of automatic braking unit.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein automatic water switch equipped to be connected by raining water between electric wires to turn on second sensor in the front of car for detecting at a longer distance to earlier stop car running on wet, drying water by wind to extinguish the function of second sensor/radar after raining over, of automatic water switch.

The concise statement of the subject matter is regarded as applicant's invention is presented for review referring to claim 2:

Detectable automatic braking system referring to claim 2 in which "automatic lower speed system" among its original fundamentals comprising: Automatic lower speed system is for lowering motor vehicle speed safely under connection of third front sensor(s)/radar(s)/detectable device(s) detecting at longest distance and reacting against obstruction to apply automatic braking on traveling way and releasing while radar(s)/sensor(s) detects free, and a revert timer is for letting motor-vehicles approach closer during heavy traffic.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, the third sensor/radar automatically reacts both motor braking and mini-motor drawing to unlock lock device to brake and to release while radar(s) detecting free to lower car speed safely at a longer distance, or using a second braking unit without lock for third sensor/radar, in which a revert timer be installed to switch off third sensor/radar for certain minutes letting cars approach closer during heavy traffic, of automatic lower speed system.

The concise statement of the subject matter is regarded as applicant's invention is presented for review referring to claim 2:

Detectable automatic braking system referring to claim 2 in which "automatic safety system" among its original fundamentals comprising: Automatic safety system is to prove Detectable automatic braking system in operation in one's motor-vehicle/transportation in which color sonorous signal lamp/message recorder is "on" showing to driver while entire system is "off" in electric installation with a thermostat for disconnecting sounding in winter snow.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein color signal sonorous lamp or recorded message being "on" showing to driver while entire braking system being "off", driver may switch off the entire system by a driver's contact when necessary or

driver finding impossible to balance his car on ice-covered road if braking operating, in which installing a thermostat to disconnect color signal sonorous lamp in winter snow, of automatic safety system.

The concise statement of the subject matter is regarded as applicant's invention is presented for review referring to claim 2:

Detectable automatic braking system referring to claim 1-3 in which the scope of the protection of the invention among its original fundamentals comprising: Since the basis of automatic braking device is invented, it covers any electrical, technical and mechanical methods in the field being built for making up any operative device of the same invention based on the invented basis comprising a part/the whole of it, and the invented basis covers as well any replacement of parts/process being assembled beyond/among those created structures for constructing any operative device having the same/similar outcome, comprising cited elements in the relating claim.

Claim 2, including:

Detectable automatic braking system referring to claim 1 & 2 and Automatic stop lamp system, Detectable automatic (alarm) systems in claim 3 wherein the original elements, composition, function, structures, process of making, contents, illustrations, installation, of the invention in these documents, any other structures, modifications, replacement of parts assembling to make up the same systems or to perform similar devices referring to their original fundamentals to the same effect and combining the invention with any other devices or systems using other names are in the scope of the protection of the invention, the invention be used everywhere.

The concise statement of the subject matter is regarded as applicant's invention is presented for review as in claim 3:

"Automatic stop lamp system" in its original fundamentals and among its wordings comprising: Automatic stop lamp system is for safely controlling motor-vehicles on red light without letting them pass lighting zone limit.

## Claim 3

What I claim as my invention is : Automatic stop lamp system for traffic light including:

Extra lamp(s) equipped for traffic light at a position to focus its beam at lighting zone limit on red to stop cars advancing on red that its beam has capacity to react function of Detectable automatic braking system on sensor(s)/radar(s) of front motor-vehicles.

The concise statement of the subject matter is regarded as applicant's invention is presented for review as referring to claim 3:

"Detectable automatic alarm system" in its original fundamentals and among its wordings comprising: Detectable automatic alarm system is for safely driving for detecting at both sides of motor-vehicle on traveling way under connection of sensors/radars/detectable devices, sonorous alarm device to sound driver once running motor-vehicles extremely approach each other.

Claim 3, including:

and Detectable automatic alarm system using for all kinds of motor and engine vehicles, automobiles, cars, trucks, buses, vans, trains, motorcycles, airplanes, ships..., including:

Small sensor(s)/radar(s) or detectable devices equipping at both sides of a car to sound sonorous alarm or recorded message to driver, indicator showing color signal lamp; right or left side be detected once running cars extremely approaching each other,

The concise statement of the subject matter is regarded as applicant's invention is presented for review referring to claim 3:

"Detectable automatic alarm system" in its original fundamentals and among its wordings comprising: Detectable automatic alarm system is for safely driving for detecting on right & left mirror sides of motor-vehicle for as back detecting on traveling way under connection of sensors/radars/detectable devices, signal lamp/switch and sonorous (signal) device to sound driver if rear motor-vehicle is detected.

Claim 3, including:

and extra sensors/radars or detectable devices equipping on right & left mirrors of cars for back detecting during turning, sonorous (signal) alarm or voice sounding to driver (on indicator) if rear car being detected by radar at a distance while signal lamp being on.

3. Note: the use of “etc” is prohibited, claims should not refer to figures nor should they depend from themselves.

- Appellant's claims 1-3 in which words; “etc” and “figures” were removed as instructed.

4. This action is made final..

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Siconolfi whose telephone number is 571-272-7124..

(I) Argument page(s): 43 pages.

## DETAILED ACTION

### 1. Claim rejections - 35 USC 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-3 are rejected as failing to define the invention in the manner required by 35 USC 112, second paragraph. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only.

- Appellant presents in this section each claim along with its detailed arguments as required by 35 USC 112 as:

### Claim 1

What I claim as my invention is : Detectable automatic braking system used for all kinds of motor and engine vehicles, automobiles, cars, trucks, buses, vans, trains, tanks, motorcycles, airplanes, ships..., including:

Sensor(s)/radar(s) or detectable devices equipping in the front (top) of vehicle and at its rear (top) part for detecting at a distance between two vehicles or obstruction, radar(s) sending information to switch braking unit on to brake the car automatically to stop its running once obstruction being detected,

Referring to the specification by page 2 line 3-5, page 12 line 11-16, drawing by FIG. 31-32, reference paragraph [0007], [0078], and page 5 line 6-13, drawing by FIG. 31, reference paragraph [0052]:

The specification of the subject matter along with its basis is presented as applicant's invention in detailed argument in claim 1:



Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing “Detectable automatic braking system” among its wordings comprising: Detectable automatic braking device/system is installed in motor-vehicle/transportation having feature for applying brake by itself to halt motor-vehicle running on traveling way to stop traffic accident whenever it is conducted electrically by the detected result or sensed signal of its front and rear sensors/radars/operative devices detecting or sensing a physical property or an obstruction in detecting zone.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-14) as below:

Referring to claim 1, the specification and drawing as above-cited:

- (1) Detectable automatic braking system;
- (2) Detectable automatic braking system; covering its linking parts as front and rear radars/sensors/operative devices, automatic water switch, automatic voice sounding device, automatic lower speed system, detectable automatic alarm system, one(s) of automatic braking units (structures of “Triangle wheel”, “Duo” to “Duo-I”), entire braking system network, electrical circuit connection, automatic lock device, automatic releasing unit, automatic brake pedal/new pedal/extra brake outlet rod and automatic safety system, for constructing an operative device.
- (3) Detectable automatic braking system is for installing in all kinds of engine and motor vehicles, automobiles, cars, trucks, buses, vans, trains, tanks, motorcycles, airplanes, ships and others,
- (4) Detectable automatic braking system; having feature for applying brake by itself to halt motor vehicle/transportation running to avert traffic accident on traveling way,
- (5) sensor(s)/radar(s) or detectable device(s),
- (6) sensor(s)/radar(s) or detectable device(s); for detecting at a distance on traveling way, and
- (7) sensor(s)/radar(s) or detectable device(s); for detecting and responding by detected result or sensed signal against obstruction,
- (8) radar(s)/sensor(s); for fixing in the front part of motor-vehicle having facility to avert direct lighting flashing on it,
- (9) sensor(s)/radar(s) or detectable device(s); for detecting at a distance between two vehicles

or obstruction,

(10) radar(s)/sensor(s) reacts against obstruction switching braking unit/motor on to brake motor-vehicle automatically to stop traffic accident,

(11) sensor(s)/radar(s) or detectable device(s); for equipping at rear motor-vehicle,

(12) rear radar(s)/sensor(s); having electrical connection of the same function as backing light.

(13) rear radar(s)/sensor(s); for reacting detecting at near distance only if driver backs his motor-vehicle, and

(14) braking unit; having feature for applying brake by itself reacted by sensor(s)/radar(s) or detectable device(s),

Claim 1, including:

and a (third) radar/sensor equipping in the front of car to detect to sound sonorous alarm or recorded message to driver at the earliest among other radars once obstruction detected by this radar, driver lowering car speed to avert automatic braking, of automatic voice sound.

Referring to the specification by page 11 line 16-19 and reference paragraph [0075]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 1:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic voice sounding device" referring to claim 1 among its wordings comprising: A (third) front radar/sensor is equipped in the front part of motor vehicle detecting and connecting device to sound sonorous signal lamp or recorded message to driver at the earliest among these radars once obstruction is detected by this radar on traveling way, driver may lower motor-vehicle speed before automatic braking operates.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-8) as below:

Referring to claim 1, the specification and drawing as above-cited:

(1) automatic voice sounding device;

(2) a (third) radar/sensor,

- (3) a (third) radar/sensor; for equipping in the front part of motor vehicle,
- (4) a (third) radar/sensor; for detecting at longest distance,
- (5) a (third) radar/sensor among other radars; for detecting an obstruction and sounding to driver at the earliest,
- (6) a (third) radar/sensor; for connecting sonorous alarm/recorded message device,
- (7) sonorous signal lamp or recorded message device; for sounding driver, and
- (8) driver may lower motor-vehicle speed before automatic braking operates.

## Claim 2

What I claim as my invention is : Detectable automatic braking system equipping in all kinds of motor & engine vehicles, automobiles, cars, trucks, buses, vans, trains, motorcycles, tanks, airplanes, ships..., sensor(s)/radar(s) or detectable devices using to detect and to respond by detected result to braking unit to perform automatic braking action, including:

Referring to the specification by page 2 line 3-5, page 12 line 11-22, drawing by FIG. 31-32 and reference paragraph [0007], [0078]:

The specification of the subject matter along with its basis is presented as applicant's invention in detailed argument in claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Detectable automatic braking system" among its wordings comprising: Detectable automatic braking device/system is installed in motor-vehicle/transportation having sensors/radars/operative devices front and rear detecting/sensing and responding by detected/sensed result against a physical property or an obstruction conducting its braking unit to perform automatic braking on traveling way to stop traffic accident.

Detectable automatic braking system covering its linking parts:

Detectable automatic braking system; comprising front and rear radars/ sensors/operative devices, automatic water switch, automatic voice sounding device, automatic lower speed

system, detectable automatic alarm system, one(s) of automatic braking units (structures of "Triangle wheel", "Duo" to "Duo-I"), entire braking system network, electrical circuit connection, automatic lock device, automatic releasing unit, automatic brake pedal/new pedal/extra brake outlet rod and automatic safety system, for constructing an operative device.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-29) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) detectable automatic braking system; for equipping in all transportations for stopping traffic accident on traveling way,
- (2) detectable automatic braking system;
- (3) front radars/sensors/operative devices,
- (4) front radars/sensors/operative devices is installed on/in motor-vehicle/transportation for front and rear detecting/sensing at specified distance on traveling way,
- (5) automatic water switch,
- (6) automatic water switch is for stopping as motor-vehicle running sooner on wet against obstacle on traveling way under connection of raining water for conducting electric wires of second front sensor/radar of longer distance detection and those of automatic braking unit,
- (7) automatic voice sounding device,
- (8) automatic voice sounding device is for sounding driver at the earliest to lower motor vehicle speed to avert automatic braking operates on traveling way and extra front radar, sonorous signal lamp/recorded message device are connected in operation,
- (9) automatic lower speed system,
- (10) automatic lower speed system is for lowering motor vehicle speed safely under connection of third front sensor(s)/radar(s)/detectable device(s) detecting at longest distance and reacting against obstruction to apply automatic braking on traveling way and releasing while radar(s)/sensor(s) detects free,
- (11) detectable automatic alarm system,
- (12) detectable automatic alarm system is for safe driving in which small sensors/radars/detectable devices are equipped at both sides of a motor-vehicle detecting and connecting sonorous alarm device to sound driver as lamp(s) showing on indicator; right/left in detection

once running motor-vehicles extremely approach each other on traveling way,

(13) detectable automatic alarm system is for safe driving in which extra sensors/radars/detectable devices are equipped on right & left mirror sides of motor-vehicle for as back detecting and connecting signal lamp switch/signal lamp while turning on with sonorous (signal) alarm sounding driver if rear motor-vehicle is detected,

(14) automatic braking unit,

(15) automatic braking unit is installed having feature for applying brake by itself to halt motor-vehicle/transportation running automatically to stop traffic accident on traveling way, which is conducted as electrically by the detected result or sensed signal of its sensors/radars/operative devices front and rear detecting/sensing a physical property/an obstruction in detecting zone,

(16) entire braking system network,

(17) network showing entire braking system functioning and operating on (FIG. 31),

(18) electrical circuit connection,

(19) an electrical circuit connection; for connecting electrically automatic braking device in operation on (FIG. 32),

(20) automatic lock device,

(21) lock device is installed for locking the brake firmly or its relating part to maintain braking during which automatic braking is operating just after switch turns brake motor off, and braking unit/electric motor is used for rotating a braking object to apply brake against pedal,

(22) automatic releasing unit,

(23) automatic releasing unit is installed for releasing the brake by unlocking lock device by as cable drawing by mini-motor wheel automatically or driver switch button manually releasing the brake under spring force just after sensor(s)/radar(s) detects free,

(24) automatic brake pedal/new pedal/extra brake outlet rod,

(25) automatic brake pedal/new pedal/extra brake outlet rod as object/means for braking,

(26) automatic safety system,

(27) automatic safety system is to prove Detectable automatic braking system in operation in one's motor-vehicle/transportation in which color sonorous signal lamp/message recorder is "on" showing to driver while entire system is "off" in electric installation,

- (28) constructing an operative device, and
- (29) constructing an operative device of the invention(s) comprising being constructed in any electrical, technical and mechanical ways of an operative device(s) comprising interacting in its logical order.

Claim 2, including:

Braking by pressing or pulling function, new pedals, rubber boot, safety covers, braking positions against extra brake outlets, automatic braking pedals for proper automatic braking use without causing movement of vehicle pedal, using their main parts wherein or movement of any other equipments, instruments having braking effect; using movement of force by motor, by air, by wind, by spring, by energy, of air hydraulic/oxygen (unit), of air/liquid pump, of cylinder as nut & piston as bolt with induction coils., braking objects including wheels, spindle, axis, rod, oscillator moving frame, bracket drive and any other objects with same effect, using sensors or any other wire/wireless detectable devices; radars, infrared (detector) lenses, detectors, electronic eyes, lighting sensors, motion sensor detectors, sensor video cameras., having heating effect against snow, accessories.

Referring to the specification by page 10 line 9-27, drawing by FIG. 35-40 and reference paragraph [0071], [0072]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic brake pedal/new pedal/extra brake outlet rod and installation of materials" referring to claim 2 among its wordings comprising:

Automatic brake pedal is made having the same axis of vehicle pedal equipping for proper automatic braking use without causing movement of vehicle pedal and new pedal with protection cover for pedal movement both using for braking use, extra brake rod outlet is particularly made and used independently for performing automatic braking, using movement of force for braking comprises any movement by any force or energy with any equipment/instrument producing braking result, and using wire/wireless detectable devices of any

operative ones for detecting, as any others cited in the specification and claims.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-40) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) braking by pressing or pulling function,
- (2) braking by pressing or pulling function; any usable operation to perform braking comprising by pressing or pulling effect,
- (3) new pedal,
- (4) new pedal; any operative pedal usable for braking,
- (5) automatic braking pedal;
- (6) automatic braking pedal; having the same axis of pedal and for proper automatic braking use without causing the movement of vehicle pedal,
- (7) pedal safely covers or pedal rubber boot,
- (8) pedal safely cover or pedal rubber boot; for protection of pedal movement,
- (9) extra braking rod outlet besides original booster/master cylinder,
- (10) extra braking rod outlet; for using particularly to perform automatic braking,
- (11) braking position,
- (12) braking position; comprising any position for performing braking,
- (13) braking; is used any equipments or instruments having braking effect,
- (14) braking using movement of force by motor,
- (15) braking using movement of force by air,
- (16) braking using movement of force by wind,
- (17) braking using movement of force by spring,
- (18) braking using movement of force by energy,
- (19) braking using movement of force of air hydraulic/oxygen (unit),
- (20) braking using movement of force of air/liquid pump,
- (21) braking using movement of force of cylinder as nut & piston as bolt with induction coils  
or
- (22) braking using movement of force by/of others,
- (23) braking objects include wheels, spindle, axis, rod, oscillator moving frame, bracket drive

and/or

- (24) braking objects as wheels; for rotating against pedal to brake,
- (25) braking objects as spindle; for pressing against pedal to brake,
- (26) braking objects as axis; for pressing against pedal to brake,
- (27) braking objects as rod; for moving forward against brake outlet to brake,
- (28) braking objects as oscillator moving frame; for connecting engine pulley to brake,
- (29) braking objects as bracket drive; for pressing against bar to brake,
- (30) braking object includes any other objects with braking effect,
- (31) using wire/wireless detectable device as radar,
- (32) using wire/wireless detectable device as sensor,
- (33) using wire/wireless detectable device as infrared (detector) lenses,
- (34) using wire/wireless detectable device as detector,
- (35) using wire/wireless detectable device as electronic eye,
- (36) using wire/wireless detectable device as lighting sensor,
- (37) using wire/wireless detectable device as motion sensor,
- (38) using wire/wireless detectable device as video camera, or
- (39) using wire/wireless detectable device as others, having heating effect against snow, parts,
- (40) wire/wireless detectable device; any device having detecting/sensing and responding by detected/sensed result.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts braking motor rotating triangle wheel to its edge point pressing at the opposite side of upper pedal to brake, braking locked by iron switches of motor to its inner triangle wheel, brake released by switch device and spring force of triangle wheel structure.

Referring to the specification by page 5 line 22-26, page 6 line 1-4 drawing by FIG. 1-2, 32 and reference paragraph [0054]:

The specification along with its basis is presented as applicant's invention in detailed



argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing “Automatic braking unit” as “triangle wheel” structure referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to switch braking motor on rotating triangle wheel to its edge point pressing at pedal to brake and braking is locked by as three iron switches of motor inside motor at position to turn motor off prior to locking at edge points of an inner triangle wheel or similar locking device at braking position, where brake is to be released by button J2c or J2e (FIG. 32) switching motor on rotating at the same spin or opposite spin and spring force; a ball bearing with pin is fixed firmly at the surface of wheel nearby its flat part corner where a spring is fixed from pin to a moving ball of motor frame pulling wheel at the right position after each spin so as to unlock the brake pedal. We fix brake motor between two strong springs to support its spin and motor is linked with arm at its end to frame letting motor move at its specific position.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-23) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) triangle wheel structure;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) triangle wheel; as object rotating to press on pedal,
- (7) the opposite side of upper pedal/pedal; for braking use,
- (8) triangle wheel; is equipped to/by motor rotating to its edge point pressing pedal to brake,
- (9) iron switches of motor; for turning motor off and locking inner wheel,
- (10) inner triangle wheel; for being locked by iron switch,

- (11) iron switches inside motor; for turning motor off prior to locking,
- (12) braking; is locked by iron switches inside motor to its inner triangle wheel or
- (13) similar locking device at braking position,
- (14) switch device,
- (15) brake; is to be released by button J2c or J2e and spring force,
- (16) button J2c or J2e switches motor on rotating at the same/opposite spin,
- (17) spring force; a ball bearing with pin is fixed firmly at the surface of wheel nearby its flat part corner where a spring is fixed from pin to a moving ball of motor frame pulling wheel at the right position after each spin so as to unlock the brake pedal,
- (18) a ball bearing with pin; is fixed firmly at the surface of wheel nearby its flat part corner,
- (19) a spring; is fixed from pin to a moving ball of motor frame pulling wheel at the releasing position,
- (20) a frame; for fixing a braking motor on it,
- (21) two support springs,
- (22) supporting springs; for fixing braking motor supporting it on braking movement, and
- (23) arm; motor is fixed with an arm at its end to frame letting motor move at specific position.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts braking motor rotating triangle wheel to its edge point pressing at the opposite side of upper pedal to brake, braking locked by lock device of motor to bracket arm of triangle wheel, brake released by driver's button and spring force of triangle wheel structure Duo.

Referring to the specification by page 6 line 5-11, drawing by FIG. 3-5 and reference paragraph [0055]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing “Automatic braking unit” as triangle wheel structure “Duo” referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/ transportation to switch braking motor on rotating triangle wheel to its edge point pressing on pedal part to brake and braking is locked by motor lock device to bracket arm of triangle wheel at braking position after motor is turned off by switch, where brake is to be released by driver’s button J2d rotating wheel to iron bar blockaded at wheel bracket (FIG. 5) and spring force; motor is linked with a spring to pull triangle wheel by its pin rotating a ball bearing for back spin, motor is fixed between two supporting springs ending with an arm to the frame.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-25) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) triangle wheel structure “Duo”;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) triangle wheel; as object rotating to press on pedal to brake,
- (7) the opposite side of upper pedal/pedal; for braking use,
- (8) triangle wheel is equipped to/by motor rotating to its edge point pressing pedal to brake,
- (9) lock device; for locking to maintain braking,
- (10) bracket arm; for locking by lock device,
- (11) switch,
- (12) switch; for turning motor turned off prior to locking,
- (13) braking; is locked by motor lock device to bracket arm of triangle wheel at braking position,
- (14) driver’s button; for switching motor spin and/or drawing to unlock lock device,
- (15) brake; is to be released by driver’s button J2d and spring force,

- (16) so wheel rotates to iron bar blocked at wheel bracket,
- (17) iron bar; for blocking to wheel bracket,
- (18) wheel bracket; for blocking to iron bar,
- (19) spring; for drawing back at position,
- (20) ball bearing; for facilitating its pin at movement,
- (21) spring force; motor is linked with a spring to pull triangle wheel by its pin rotating a ball bearing on back spin,
- (22) two support springs,
- (23) supporting springs; for fixing braking motor supporting it on braking movement,
- (24) a frame; for fixing a braking motor on it, and
- (25) arm; motor is fixed with an arm at its end to frame letting motor move at specific position.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts braking motor rotating triangle wheel to its edge point pressing at the opposite side of upper pedal to brake, braking locked by lock device of motor to bracket arm of wheel, brake released by driver's button and rewind spring or using double spinning motor, of triangle wheel structure Du.

Referring to the specification by page 6 line 12-19, drawing by FIG. 6-10 and reference paragraph [0056]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic braking unit" as triangle wheel structure "Du" referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/ transportation to switch braking motor on rotating triangle wheel to its edge point pressing on pedal to brake, braking is locked by motor lock device to wheel bracket arm after motor

turned off by switch, where brake is to be released by driver's button drawing to rotate motor back to blockade wheel arm to motor bar and rewind spring or using double spinning motor, driver's button J2e-Du13 is drawn on releasing and wheel bracket Du12a will be locked at switch device Du13a turning motor off at back spin, motor ending with arm is fixed by two springs in a frame.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-26) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) triangle wheel structure "Du";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) triangle wheel; as object rotating to press on pedal,
- (7) pedal; for braking use,
- (8) triangle wheel; is equipped to/by motor rotating to its edge point pressing pedal to brake,
- (9) lock device; for locking to maintain braking,
- (10) bracket arm; for locking by lock device,
- (11) switch,
- (12) switch; for turning motor turned off prior to locking,
- (13) braking; is locked by motor lock device to bracket arm of triangle wheel during braking,
- (14) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (15) wheel arm; for blocking to motor bar,
- (16) motor bar; for blocking to wheel arm,
- (17) motor rewind spring; for rewinding motor at back spin,
- (18) brake; is to be released by driver's button J2d drawing to rotate motor back to blockade wheel arm to motor bar and rewind spring or
- (19) using double spinning motor,

- (20) using double spinning motor, driver's button J2e-Du13 is drawn on releasing and
- (21) wheel bracket Du12a is to be locked at switch device Du13a turning motor off at back spin,
- (22) switch device,
- (23) two support springs,
- (24) supporting springs; for fixing braking motor supporting it on braking movement,
- (25) a frame; for fixing a braking motor on it, and
- (26) arm; motor is fixed with an arm at its end to frame letting motor move at specific position.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis fixing between center and rim of a round wheel, rotating at wheel summit pushing on pedal part to brake, braking locked by lock device of motor to bracket arm of wheel, brake released by driver's button and rewind spring or using double spinning motor, of round wheel structure Duo-A.

Referring to the specification by page 6 line 20-27, page 7 line 1, drawing by FIG. 11-12 and reference paragraph [0057]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic braking unit" as round wheel structure "Duo-A" referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/ transportation to operate brake motor whose axis is fixed between center and rim part of a round wheel rotating wheel at its summit spin pushing on pedal part to brake, where braking is locked by motor lock device to wheel bracket arm after motor is turned off by switch, brake is to be released by driver's button J2d and motor rewind spring at back spin or using double

spinning motor; one spin to brake and the other spin to release by driver's button J2e rotating motor wheel to switch A6 off, motor is fixed between two supporting springs and holds an arm moving at specific position in the frame.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-25) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) round wheel structure "Duo-A";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) round wheel; as object rotating to press on pedal,
- (7) motor axis,
- (8) motor axis is fixed between center and rim part of a round wheel,
- (9) pedal; for braking use,
- (10) motor wheel; rotates at its summit pushing on pedal part to brake,
- (11) lock device; for locking to maintain braking,
- (12) bracket arm; for locking by lock device,
- (13) switch,
- (14) switch; for turning motor turned off prior to locking,
- (15) braking; is locked by motor lock device to wheel bracket arm,
- (16) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (17) motor rewind spring; for rewinding motor at back spin,
- (18) brake; is to be released by driver's button J2d and motor rewind spring at back spin or
- (19) using double spinning motor,
- (20) using double spinning motor; one spin to brake and the other spin to release by driver's button J2e rotating motor wheel to switch A6 off/using button,
- (21) an off-switch; for turning motor off or using switch button instead,

- (22) two support springs,
- (23) supporting springs; for fixing braking motor supporting it on braking movement,
- (24) a frame; for fixing a braking motor on it, and
- (25) arm; motor is fixed with an arm at its end to frame letting motor move at specific position.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis fixing between center and rim of a round wheel, rotating at wheel summit pushing on pedal part to brake, braking locked by lock devices of motor to its inner wheel, brake released by driver's contact and spring force, of round wheel structure Duo-a.

Referring to the specification by page 7 line 2-10, drawing by FIG. 13-14 and reference paragraph [0058]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic braking unit" as round wheel structure "Duo-a" referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/ transportation to operate brake motor whose axis is fixed between center and rim part of a round wheel rotating wheel at its summit spin pushing on pedal part to brake, where braking is locked by motor lock device to locking holes on first/second line of two holes each of inner wheel depending motor off spin during braking after motor is turned off by switch, brake is to be released by driver's button J2c (FIG. 32) on rotating releasing and spring force; a ball bearing with pin is fixed firmly at the surface edge of round wheel where a spring is fixed from pin to a moving ball of motor frame pulling the wheel at right position to unlock the brake, single spin motor is equipped in a frame with springs to support its movement.



Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-25) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) round wheel structure "Duo-a";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) round wheel; as object rotating to press on pedal,
- (7) motor axis fixing between center and rim part of a round wheel,
- (8) pedal; for braking use,
- (9) motor wheel; rotates at its summit pushing on pedal part to brake,
- (10) lock device; for locking to maintain braking,
- (11) inner wheel; has first/second line of two holes each,
- (12) switch,
- (13) switch; for turning motor turned off prior to locking,
- (14) braking; is locked by motor lock device to locking holes on first/second line of two holes each of inner wheel depending motor off spin,
- (15) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (16) spring force; for springing back releasing,
- (17) brake; is to be released by driver's button J2c (FIG. 32) rotating releasing and spring force,
- (18) spring; for drawing back at position,
- (19) ball bearing; for facilitating its pin at movement,
- (20) moving ball; for holding spring at movement,
- (21) spring force; a ball bearing with pin is fixed firmly at the surface edge of round wheel where a spring is fixed from pin to a moving ball of motor frame pulling the wheel at right position to unlock the brake,
- (22) a frame; for fixing a braking motor on it,
- (23) supporting springs,

- (24) supporting springs; for fixing braking motor supporting it on braking movement, and
- (25) a frame; for equipping with (single spin) motor on it.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor; its toothed spindle engaging through gear-nut of frame screwing out pressing on pedal part to brake, braking locked by lock device, released by driver's button and slotted spindle spring force or spring linked to frame, of screw & unscrew structure Duo-B.

Referring to the specification by page 7 line 11-18, drawing by FIG. 15-16 and reference paragraph [0059]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic braking unit" as screw & unscrew structure "Duo-B" referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to operate brake motor whose toothed spindle engages through outlet gear-nut of spring supporting frame screwing out pressing on pedal part or automatic brake pedal to brake, where braking is locked by lock device after motor is turned off by switch, brake is to be released by driver's button J2d and spring force; spindle slots into spring before inserting to gear-nut or motor ending spring being linked to frame. If double rotating motor is used, driver's contact J2e is to release and a switch B10 may be added letting back spinning motor off JA(1).

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-19) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) screw & unscrew structure "Duo-B";
- (2) sensor(s)/radar(s) or detectable device(s),

- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s)/detectable device(s); for detecting obstacle and switching brake motor on,
- (5) braking motor with a toothed spindle; as method for braking, having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) gear-nut of spring supporting frame; for holding motor letting spindle moving through it,
- (7) brake motor toothed spindle; engages through outlet gear-nut of spring supporting frame,
- (8) pedal or automatic brake pedal; for braking use,
- (9) brake motor toothed spindle; screws out through frame outlet gear-nut pressing on pedal part to brake,
- (10) lock device; for locking to maintain braking,
- (11) switch,
- (12) switch; for turning motor turned off prior to locking,
- (13) braking; is locked by lock device,
- (14) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (15) brake; is to be released by driver's button J2d and spring force,
- (16) spring force; spindle slots into spring before inserting to gear-nut or
- (17) spring force; motor ending spring being linked to frame or
- (18) double rotating motor is used; one spin to brake, the other spin to release, and
- (19) driver's contact J2e; for releasing double rotating motor or with a switch for turning motor off.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis engaging a tube outlet of frame with grooved end part rotated by a gear of motor, moving axis pressing on pedal part to brake, braking locked by lock device, released by driver's button and spring, of axis-gear structure Duo-C.

Referring to the specification by page 7 line 19-27, drawing by FIG. 17-18 and reference

paragraph [0060]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic braking unit" as axis-gear structure "Duo-C" referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/ transportation to operate brake motor, an axis with grooved end part rotated by a gear of motor through a frame tube outlet pressing on pedal part to brake, where braking is locked by lock device after motor is turned off by switch, brake is to be released by driver's button J2d and spring force; motor rewind spring, spring linking at end axis to the frame or rewind spring of automatic brake pedal, if we use double revolving motor, releasing is by driver's contact J2e and switch C11 is for turning motor off at back spin, we install motor between supporting springs.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-21) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) axis-gear structure "Duo-C";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) pedal; for braking use,
- (7) axis with grooved end part; for braking to press on pedal,
- (8) axis with grooved end part rotated by a gear of motor through a frame tube outlet pressing on pedal part to brake,
- (9) lock device; for locking to maintain braking,
- (10) switch,

- (11) switch; for turning motor turned off prior to locking,
- (12) braking; is locked by lock device,
- (13) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (14) brake; is to be released by driver's button J2d and spring force,
- (15) spring force; motor rewind spring for rewinding motor at back spin or
- (16) spring force; spring linking at end axis to the frame or
- (17) spring force; rewind spring of automatic brake pedal or
- (18) double rotating motor is used; one spin to brake, the other spin to release,
- (19) driver's contact J2e is to release brake on double rotating motor at back spin, or with a switch for turning motor off,
- (20) supporting springs, and
- (21) supporting spring; spring(s) for fixing braking motor supporting it on braking movement.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis fixing between center and rim of a round wheel with connecting rod, pressing to an extra outlet built from brake original booster/master cylinder to brake, braking locked by lock device and released by driver's button using revert spring force at back spin, of extra outlet structure Duo-D.

Referring to the specification by page 8 line 1-9, drawing by FIG. 19-20 and reference paragraph [0061]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic braking unit" as extra outlet structure "Duo-D" referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/ transportation to operate brake motor with a round wheel, an axis is fixed between center and

rim part of the round wheel with a connecting roller rod linking to an extra brake outlet rod under spring force built from original booster/master cylinder pressing onto it to brake, where braking is locked by lock device after motor is turned off by switch and brake is to be released by driver's button J2d drawing unlock lock device under outlet rod revert spring force or driver's button J2e is used for a right & left spinning motor being fixed with support spring.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-22) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) extra outlet structure "Duo-D";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s)/detecting device(s); for detecting obstacle and switching brake motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) round wheel; its center and rim part is fixed with an axis of motor,
- (7) an axis; for fixing with round wheel,
- (8) an axis is fixed between center and rim part of the round wheel with a connecting roller rod linking to an extra brake outlet rod under spring force pressing onto it to brake,
- (9) an extra brake outlet rod built from original booster/master cylinder; for braking use,
- (10) pedal; for braking use,
- (11) lock device; for locking to maintain braking,
- (12) switch,
- (13) switch; for turning motor turned off prior to locking,
- (14) braking; is locked by lock device,
- (15) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (16) brake; is to be released by driver's button J2d drawing unlock lock device and spring force,
- (17) spring force; under outlet rod revert spring force at motor back spin or
- (18) spring force; motor rewind spring at motor back spin, or
- (19) double rotating motor is used; one spin to brake, the other spin to release,

- (20) driver's contact (J2e); is to release brake on double rotating motor at back spin,
- (21) supporting spring, and
- (22) supporting springs; for fixing braking motor supporting it on braking movement.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts oscillator moving the frame, on which an extra outlet with hose, connecting rod kit in air releasing spring unit placing with ball bearing centered to a wheel, pressing to a rubber cover wheel manufactured as a part of double pulley rotated by car engine to brake, braking locked by lock device, released by driver's contact, of moving frame structure Duo-E.

Referring to the specification by page 8 line 10-17, drawing by FIG. 21-22 and reference paragraph [0062]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic braking unit" as moving frame structure "Duo-E" referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/ transportation to operate oscillator to forward or backward move a frame on which an extra outlet rod links roller pin with a connecting rod kit in air releasing spring unit which has a pin roller to center and rim part of a wheel centered ball bearing in the frame that the wheel will connect (to brake) and disconnect (to release) pressing to a rubber cover wheel manufactured as a part of double pulley rotated by vehicle engine to brake, where braking is locked by lock device and brake is to be unlocked releasing by driver's contact J2d, using fluid hose for moving adaptation.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-19) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) moving frame structure "Duo-E";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s)/detectable device(s); operates oscillator to move a frame,
- (5) a frame; on where braking unit is installed for moving against engine pulley to brake,
- (6) oscillator,
- (7) an extra outlet rod; for braking use,
- (8) roller pin; for holding two parts on spin,
- (9) ball bearing; for holding two parts on spin,
- (10) a connecting rod kit in air releasing spring unit; for moving forward or backward on braking or releasing,
- (11) an extra outlet rod links roller pin with a connecting rod kit in air releasing spring unit which has a pin roller to center and rim part of a wheel centered ball bearing in the frame
- (12) round wheel; for braking and releasing on spin,
- (13) a rubber cover wheel manufactured as a part of double pulley; for linking between engine and moving frame,
- (14) the wheel will connect (to brake) and disconnect (to release) pressing to a rubber cover wheel manufactured as a part of double pulley rotated by vehicle engine to brake,
- (15) lock device; for locking to maintain braking,
- (16) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (17) braking; is locked by lock device to be unlocked releasing by driver's contact J2d,
- (18) hose; for fluid use, and
- (19) using fluid hose; for moving adaptation.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to drive a rectangular bracket pressing on pedal part to brake, braking locked by lock device, released by driver's button and spring force, of bracket drive structure Duo-F.



Referring to the specification by page 8 line 18-24, drawing by FIG. 23-24 and reference paragraph [0063]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic braking unit" as bracket drive structure "Duo-F" referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/ transportation to switch support spring motor on driving its rectangular bracket between two springs for linking both ends of motor frame and bar with a pin moving in its frame cavity that bar outer part pressing against pedal part or automatic brake pedal to brake, where braking is locked by lock device after motor is turned off by switch and spring force releases reacted by driver's button J2d.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-18) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) bracket drive structure "Duo-F";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s); for detecting obstacle and switching braking motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) support springs; springs for fixing braking motor supporting it on braking movement,
- (7) a frame with cavity; for letting pin of bar moving,
- (8) bar with a pin; for holding in frame on movement,
- (9) rectangular bracket; for driving to apply brake,
- (10) springs; for springing back at position,
- (11) pedal; for braking use,
- (12) braking motor drives its rectangular bracket between two springs for linking both ends of

a motor frame and bar with a pin moving in its frame cavity that bar outer part pressing against pedal part or automatic brake pedal to brake,

(13) switch,

(14) switch; for turning motor turned off prior to locking,

(15) lock device; for locking to maintain braking,

(16) braking; is locked by lock device,

(17) driver's button; for switching motor spin and/or drawing to unlock lock device, and

(18) spring force; releases reacted by driver's button (J2d).

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to rotate its bar pressing on pedal part to brake, inner wheel locked by lock device inside motor during braking, released by driver's button and rewind spring, of direct spin structure Duo-G.

Referring to the specification by page 8 line 25-27, page 9 line 1-3, drawing FIG. 25-26 and reference paragraph [0064]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic braking unit" as direct spin structure "Duo-G" referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/ transportation to switch spring supporting motor on rotating its bar pressing on pedal part or automatic brake pedal to brake, inner wheel is locked by lock device inside motor during braking after motor is turned off by switch, where brake is to be released by driver's button J2d and motor rewind spring, if a double rotating motor is used at back spin and released by contact J2e or with an off-switch.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-19) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) direct spin structure "Duo-G";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s)/detecting device(s); for detecting obstacle and switching brake motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) support springs; for fixing braking motor supporting it on braking movement,
- (7) bar; for fixing with motor axis,
- (8) pedal; for braking use,
- (9) motor bar; rotates by motor pressing on pedal or automatic brake pedal to brake,
- (10) switch,
- (11) switch; for turning motor turned off prior to locking,
- (12) lock device; for locking to wheel,
- (13) inner wheel; for locking by lock device,
- (14) inner wheel inside motor; for locking by lock device during braking,
- (15) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (16) motor rewind spring; for rewinding motor at back spin,
- (17) brake; is to be released by driver's button J2d and motor rewind spring, or
- (18) double rotating motor; one spin to brake, the other spin to release, and
- (19) double rotating motor at back spin; for releasing by contact J2e or with an off-switch.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to rotate its oval wheel pressing on pedal part to brake, wheel locked by lock device, released by driver's button and rewind spring, of oval wheel structure Duo-H.

Referring to the specification by page 9 line 4-9, drawing by FIG. 27-28 and reference paragraph [0065]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic braking unit" as oval wheel structure "Duo-H" referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/ transportation to switch spring supporting motor on rotating its oval wheel pressing on pedal or automatic brake pedal to brake, the wheel has a bracket arm to blockade itself at motor iron bar, wheel is locked by lock device during braking after motor is turned off by switch, driver's button J2d is drawn to release with rewind spring force, if a double rotating motor is used at back spin and released by contact J2e or with an off-switch.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-20) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) oval wheel structure "Duo-H";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s)/detecting device(s); for detecting obstacle and switching brake motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s)/detectable device(s),
- (6) support springs; for fixing braking motor supporting it on braking movement,
- (7) oval wheel; for use rotating to brake,
- (8) pedal; for braking use,
- (9) motor rotates its oval wheel pressing on pedal or automatic brake pedal to brake,
- (10) switch,
- (11) switch; for turning motor turned off prior to locking,
- (12) bracket arm; for blocking to bar,
- (13) iron bar; for blocking to bracket arm,
- (14) lock device; for locking to maintain braking,
- (15) the wheel with a bracket arm; for blocking itself at motor iron bar and wheel is locked by

lock device during braking,

(16) driver's button; for switching motor spin and/or drawing to unlock lock device,

(17) motor rewind spring; for rewinding motor at back spin,

(18) brake; is to be released by driver's button J2d and motor rewind spring or

(19) double rotating motor; one spin to brake, the other spin to release, and

(20) double rotating motor at back spin; for releasing by contact J2e or with an off-switch.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to rotate its hexagonal wheel pressing on pedal part to brake, inner wheel locked by lock device inside motor during braking, released by driver's button and rewind spring, of hexagonal wheel structure Duo-I.

Referring to the specification by page 9 line 10-16, drawing by FIG. 29-30 and reference paragraph [0066]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic braking unit" as hexagonal wheel structure "Duo-I" referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, sensor(s)/radar(s) or detectable device(s) is installed on/in motor-vehicle/transportation to switch spring supporting motor on rotating its hexagonal wheel pressing on pedal part or automatic brake pedal to brake, the wheel has a bracket arm to blockade itself at motor iron bar, inner wheel is locked by lock device inside motor during braking after motor is turned off by switch, driver's button J2d is drawn to release with rewind spring force, if a double rotating motor is used at back spin and released by contact J2e or with an off-switch.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-21) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) hexagonal wheel structure "Duo-I";
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s)/detectable device(s); for detecting obstacle and switching brake motor on,
- (5) braking motor/unit; having feature for applying brake by itself electrically or any reacted by sensor(s)/radar(s) or detectable device(s),
- (6) support springs; for fixing braking motor supporting it on braking movement,
- (7) hexagonal wheel; for use rotating to brake,
- (8) pedal; for braking use,
- (9) motor rotates its hexagonal wheel pressing on pedal or automatic brake pedal to brake,
- (10) switch,
- (11) switch; for turning motor turned off prior to locking,
- (12) bracket arm; for blocking to bar,
- (13) iron bar; for blocking to bracket arm,
- (14) lock device; for locking to maintain braking,
- (15) inner wheel; for locking by lock device,
- (16) the wheel with a bracket arm; for blocking itself at motor iron bar and inner wheel is locked by lock device during braking,
- (17) driver's button; for switching motor spin and/or drawing to unlock lock device,
- (18) motor rewind spring; for rewinding motor at back spin,
- (19) driver's button (J2d); for drawing to release lock device brake with rewind spring force or
- (20) double rotating motor; one spin to brake, the other spin to release, and
- (21) double rotating motor at back spin; for releasing by contact J2e or with an off-switch.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts both functioning of motor braking and pressing button standby of mini-motor which will rotate to draw lock

device resulting from earlier pressing action releasing the brake automatically just after radar(s) detecting free, of automatic releasing process.

Referring to the specification by page 10 line 1-4 and reference paragraph [0069]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic releasing process" referring to claim 2 among its wordings comprising: Once sensor(s)/radar(s) or detectable device(s) is installed on/in transportation to detect an obstruction on traveling way and react both operating of motor braking and pressing button standby of mini-motor which will rotate to draw lock device resulting from earlier pressing action releasing the brake unit automatically just after radar(s) detects free.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-9) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) automatic releasing process;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) sensor(s)/radar(s) or detectable device(s); for detecting a distance,
- (4) sensor(s)/radar(s) or detectable device(s) switches on both operating of motor braking and pressing button standby of mini-motor,
- (5) motor braking; for rotating electrically or any to apply brake,
- (6) button of mini-motor; electric button to turn motor on/off,
- (7) mini-motor; for drawing to unlock lock device,
- (8) lock device; for locking to maintain braking, and
- (9) mini-motor for rotating to draw lock device resulting from earlier pressing action releasing the brake automatically just after radar(s) detects free,

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein brake motor be

fixed between supporting springs, appropriate motor rotating at a speed to brake a car fast enough to stop its running, if using motor spinning at both sides: one side to brake and the other side to release at low speed replacing spring force, in which switch turning brake motor off prior to braking and locking, lock; pushing a bracket over edge point of a bar/rod under spring force be blocked in device and releasing by cable drawing opposite side of rod, of lock device.

Referring to the specification by page 9 line 20-26, drawing by FIG. 9, 20, 38 and reference paragraph [0068]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Braking motor and lock device" referring to claim 2 among its wordings comprising: Brake motor is fixed between supporting springs in which appropriate motor is used rotating to brake at a speed efficiently fast to halt transportation/motor-vehicle running, if motor spinning at both sides is used; one spin to brake and the other to release at low speed replacing spring force, switch turns brake motor off prior to braking and locking by lock device, lock device; it has a bar/rod under spring force for pushing it over edge point of an opposite bracket of locking part being blocked in it as locking and one end of rod linked to cable to be released by drawing as on Du7, J2e of FIG. 9 and D7, J2d of FIG. 20.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-11) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) brake motor; for rotating to apply brake,
- (2) supporting springs; for fixing braking motor supporting it on braking movement,
- (3) brake motor; is fixed between supporting springs,
- (4) appropriate motor; for rotating at appropriate speed,
- (5) appropriate motor; for rotating to brake at a speed efficiently fast to halt transportation/motor-vehicle running,
- (6) motor spinning at both sides; motor rotating at right and left side,



- (7) if motor spinning at both sides is used; one spin to brake and the other to release at low speed replacing spring force,
- (8) switch,
- (9) switch; for turning brake motor off prior to braking,
- (10) lock device; for locking to maintain braking, and
- (11) lock device; it has a bar/rod under spring force for pushing it over edge point of an opposite bracket of locking part being blockaded in it as locking and one end of rod linked to cable to be released by drawing.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein automatic water switch equipped to be connected by raining water between electric wires to turn on second sensor in the front of car for detecting at a longer distance to earlier stop car running on wet, drying water by wind to extinguish the function of second sensor/radar after raining over on, of automatic water switch.

Referring to the specification by page 11 line 6-11, drawing by FIG. 42 and reference paragraph [0074]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic water switch" referring to claim 2 among its wordings comprising: Automatic water switch is installed in transportation/motor-vehicle to be connected by raining water as in an open box/container between electric wires of second front sensor/radar of longer distance detection and those of automatic braking unit for earlier stopping motor-vehicle running on wet when it rains to turn radar on in which the plastic box/container has a level outlet let water flow down and the wind will blow drying water to extinguish the function of radar after raining is over.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-7) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) automatic water switch;
- (2) an open box/container has a level outlet; where electric wires to be conducted by raining water,
- (3) electric wires; for conducting sensor/radar and automatic braking unit,
- (4) sensor/radar; for detecting at longer distance,
- (5) automatic braking unit; for applying brake by itself,
- (6) a level outlet of the plastic box/container; for letting water flow down in full, and
- (7) the wind will blow drying water to extinguish the function of radar after raining is over.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, the third sensor/radar automatically reacts both motor braking and mini-motor drawing to unlock lock device to brake and to release while radar(s) detecting free to lower car speed safely at a longer distance, or using a second braking unit without lock for third sensor/radar, in which a revert timer be installed to switch off third sensor/radar for certain minutes letting cars approach closer during heavy traffic, of automatic lower speed system.

Referring to the specification by page 11 line 20-25 and reference paragraph [0076]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic lower speed system" referring to claim 2 among its wordings comprising: Once obstruction being detected on traveling way, third sensor/radar is installed on/in motor-vehicle/transportation to operate both motor braking to brake lowering motor vehicle speed safely at a longer distance and mini-motor drawing to unlock lock device releasing while radar(s)/sensor(s) detects free, or a second braking unit without lock is used for third sensor/radar, which a revert timer is installed to switch third sensor/radar off for certain minutes letting motor-vehicles approach closer during heavy

traffic.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-11) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) automatic lower speed system;
- (2) sensor(s)/radar(s) or detectable device(s),
- (3) third sensor(s)/radar(s) or detectable device(s); for detecting at longest distance,
- (4) braking motor; for rotating to apply brake reacted by sensor(s)/radar(s) or detectable device(s),
- (5) mini-motor; for drawing to unlock lock device releasing brake,
- (6) lock device; for locking to maintain braking,
- (7) third sensor(s)/radar(s) or detectable device(s); detects an obstacle and operates both motor braking to brake by lowering motor vehicle speed safely at a longer distance and mini-motor drawing to unlock lock device releasing while radar(s)/sensor(s) detects free or
- (8) a second braking unit without lock,
- (9) a second braking unit without lock; for interacting with third sensor/radar,
- (10) a revert timer; for turning third sensor/radar off for certain moment, and
- (11) a revert timer; for switching third sensor/radar off for certain time letting motor-vehicles approach closer during heavy traffic.

Claim 2, including:

Detectable automatic braking system referring to claim 2, wherein color signal sonorous lamp or recorded message being "on" showing to driver while entire braking system being "off", driver may switch off the entire system by a driver's contact when necessary or driver finding impossible to balance his car on ice-covered road if braking operating, in which installing a thermostat to disconnect color signal sonorous lamp in winter snow, of automatic safety system.

Referring to the specification by page 11 line 1-5, drawing by FIG. 32, 34 and reference paragraph [0073]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Automatic safety system" referring to claim 2 among its wordings comprising: Color signal sonorous lamp or recorded message is "on" showing to driver while entire braking system is "off", driver may switch off the entire system by a driver's contact when necessary or driver finds impossible to balance his motor-vehicle on ice-covered road if braking operating, in which a thermostat is installed to disconnect color signal sonorous lamp/message recorder in winter snow.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-9) as below:

Referring to claim 2, the specification and drawing as above-cited:

- (1) automatic safety system;
- (2) color signal sonorous lamp or recorded message recorder,
- (3) color signal sonorous lamp/recorded message recorder; is connected for sounding driver,
- (4) entire braking system,
- (5) color signal sonorous lamp or recorded message is "on" showing to driver while entire braking system is "off",
- (6) contact; for switching system on/off,
- (7) contact; for driver to switch the entire system off when necessary,
- (8) thermostat; for reacting to operate by temperature of climate, and
- (9) a thermostat; for disconnecting color signal sonorous lamp/message recorder in winter snow.

Claim 2, including:

Detectable automatic braking system referring to claim 1 & 2 and Automatic stop lamp system, Detectable automatic (alarm) systems in claim 3 wherein the original elements, composition, function, structures, process of making, contents, illustrations, installation, of the invention in these documents, any other structures, modifications, replacement of parts assembling to make up the same systems or to perform similar devices referring to their

original fundamentals to the same effect and combining the invention with any other devices or systems using other names are in the scope of the protection of the invention, the invention be used everywhere.

Referring to the specification by page 13 line 1-6, and reference paragraph [0080]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 2:

Under 35 U.S.C. 112, six paragraph:

The basis of inventing and materializing Detectable automatic braking system and the invention in these documents referring to claim 1-3 covering the scope of the protection of the invention among its wordings comprising:

Means, steps and structural function (1-37) as below:

- (1) the original elements of the invention,
- (2) the original elements of the invention; comprising any electrical, technical & mechanical methods being constructed for making up any operative device(s) based on the invented elements of the invention comprising a part/the whole,
- (3) composition of the invention,
- (4) composition of the invention; comprising any materials, parts, energy, similarity and necessity for constructing an operative device of the invention,
- (5) function of the invention,
- (6) function of the invention; comprising operating the invention in any ways, operating it separately and/or in combination, operating electrically, by any energy, technically and mechanically in its logical order,
- (7) structures of the invention,
- (8) structures of the invention; comprising constructing any operative device of the same invention beyond/among those created structures and/or any structures for constructing any operative device having the same/similar outcome of the invention,
- (9) process of making of the invention,
- (10) process of making of the invention; comprising the created process of making and/or any process of making for constructing any operative device of the same invention,

- (11) contents of the invention document,
- (12) contents of the invention; comprising putting its contents into practice,
- (13) illustrations of the invention,
- (14) illustrations of the invention; comprising materializing the illustrations into practice,
- (15) installation of the invention,
- (16) installation of the invention; comprising any electrical, technical & mechanical methods being installed for making up the operative device,
- (17) any other structures,
- (18) any other structures; comprising any other different structures being constructed for making up any operative device based on the invented basis of the invention comprising a part/the whole,
- (19) modifications of the invention,
- (20) modifications of the invention; any modifications comprising addition/reduction part/unit for making up operative device(s) based on the invented basis of the invention comprising a part/the whole,
- (21) the original fundamentals of the invention,
- (22) the original fundamentals of the invention; comprising any operative methods in electrical, technical & mechanical fields being constructed for making up any operative device(s) based on the invented fundamentals of the invention comprising a part/the whole, and the said invention is written and claimed describing in any other wordings, languages and forms based on the invented fundamentals,
- (23) the invention,
- (24) the invention; comprising the invention is carried out in any ways, and the said invention is written and claimed describing in any other wordings, languages and forms based on the invented fundamentals under the scope of the protection of the invention,
- (25) replacement of parts,
- (26) replacement of parts; being assembled to make up the same systems or to perform similar devices referring to their original fundamentals operating to the same effect,
- (27) any other devices or systems,
- (28) any other devices or systems; comprising microprocessor, programmer, computer, using

satellite operating network and/or others,

(29) combining,

(30) combining the invention with any other devices or systems using other names,

(31) using other names; comprising any names,

(32) the scope of the protection of the invention,

(33) the scope of the protection of the invention; besides lawful protection, comprising any operation affecting the interest of the invention,

(34) the invention be used,

(35) the invention be used; comprising the specific and extra uses of the invention(s),

(36) the invention be used everywhere and

(37) the invention be used everywhere; comprising using the invention everywhere as desirable.

### Claim 3

What I claim as my invention is : Automatic stop lamp system for traffic light including:

Extra lamp(s) equipped for traffic light at a position to focus its beam at lighting zone limit on red to stop cars advancing on red that its beam has capacity to react function of Detectable automatic braking system on sensor(s)/radar(s) of front cars,

Referring to the specification by page 12 line 23-28, drawing by FIG. 43 and reference paragraph [0079]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 3:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "automatic stop lamp system" among its wordings comprising: Extra lamp(s)/bulb(s) is equipped connecting to traffic light at a position to focus its beam at lighting zone limit on red to stop motor-vehicles advancing on red that its beam has capacity to react operation of Detectable automatic braking system of sensor(s)/radar(s) of front motor-vehicles.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-5) as below:

Referring to claim 3, the specification and drawing as above-cited:

- (1) automatic stop lamp system;
- (2) extra lamp(s)/bulb(s); for focusing its beam at sensor(s)/radar(s) of front motor-vehicles to react operation of Detectable automatic braking devices,
- (3) lamp beam; has capacity to react sensor(s)/radar(s) in operation,
- (4) traffic light, and
- (5) extra lamp(s)/bulb(s); for equipping to connect traffic light at a position to focus its beam at lighting zone limit on red to stop motor-vehicles advancing on red.

Claim 3, including:

and Detectable automatic alarm system using for all kinds of motor and engine vehicles, automobiles, cars, trucks, buses, vans, trains, motorcycles, airplanes, ships..., including:

Small sensor(s)/radar(s) or detectable devices equipping at both sides of a car to sound sonorous alarm or recorded message to driver, indicator showing color signal lamp; right or left side be detected once running cars extremely approaching each other,

Referring to the specification by page 11 line 26, page 12 line 1-2, 7-10 and reference paragraph [0077]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 3:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Detectable automatic alarm system" referring to claim 3 among its wordings comprising: Small sensors/radars or detectable devices are equipped at both sides of a motor-vehicle connecting device to sound sonorous alarm or recorded message to driver and indicator showing color signal lamp; right or left side is detected on traveling way once running motor-vehicles extremely approach each other. The system is equipped for all kinds of engine and motor vehicles, automobiles, cars, trucks, buses, vans, trains, motorcycles, airplanes, ships and others.



Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-8) as below:

Referring to claim 3, the specification and drawing as above-cited:

- (1) detectable automatic alarm system;
- (2) detectable automatic alarm system; for equipping in all kinds of engine and motor vehicles, automobiles, cars, trucks, buses, vans, trains, motorcycles, airplanes, ships and others,
- (3) sensors/radars or detectable devices,
- (4) sensors/radars or detectable devices; for detecting at both sides of a motor-vehicle,
- (5) sensors/radars or detectable devices; for connecting with device of sonorous alarm/recorded message and lamps shown on indicator in operation,
- (6) device of sonorous alarm or recorded message; for sounding driver,
- (7) indicator showing color signal lamp, and
- (8) color signal lamps shown on indicator; right or left side is detected of sensors/radars or detectable devices.

Claim 3, including:

and extra sensors/radars or detectable devices equipping on right & left mirrors of cars for back detecting during turning, sonorous (signal) alarm or voice sounding to driver (on indicator) if rear car being detected by radar at a distance while signal lamp being on.

Referring to the specification by page 12 line 3-6 and reference paragraph [0077]:

The specification along with its basis is presented as applicant's invention in detailed argument referring to claim 3:

Under 35 U.S.C. 112, six paragraph: Every means plus function:

The basis of inventing and materializing "Detectable automatic alarm system" referring to claim 3 among its wordings comprising: Extra sensors/radars or detectable devices are equipped on right & left mirror sides of motor-vehicle for as back detecting during turning connecting signal lamp/switch with sonorous (signal) alarm or voice device sounding driver (on indicator) if rear motor-vehicle is detected by radar at a distance while signal turning lamp is on.

Under 35 U.S.C. 112, six paragraph: Steps and structural function (1-6) as below:

Referring to claim 3, the specification and drawing as above-cited:

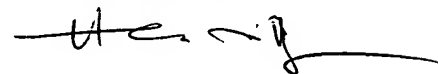
- (1) detectable automatic alarm system;
- (2) extra sensors/radars or detectable devices,
- (3) extra sensors/radars or detectable devices; for as back detecting during turning being equipped on right & left mirror sides of motor-vehicle/transportation,
- (4) sonorous (signal) alarm or voice device; for sounding driver,
- (5) signal lamp/switch; for connecting on during turning, and
- (6) extra sensors/radars or detectable devices are connected signal lamp/switch with sonorous (signal) alarm or voice device sounding driver (on indicator) if rear motor-vehicle is detected by radar at a distance while signal turning lamp is on.

3. Note: the use of "etc" is prohibited, claims should not refer to "figures" nor should they depend from themselves.

- Appellant's claims 1-3 in which words; "etc" and "figures" were removed,

4. This action is made final..

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Siconolfi whose telephone number is 571-272-7124..



(J) Claims appendix page(s): 11 pages.

## CLAIMS

Claims 4-13 were not entered in this application after final rejection and are not under appeal.

### Claim 1

*Referring to the specification by page 2 line 3-5, page 12 line 11-16, drawing FIG. 31-32 and reference paragraph [0007], [0078]:*

What I claim as my invention is : Detectable automatic braking system used for all kinds of motor and engine vehicles, automobiles, cars, trucks, buses, vans, trains, tanks, motorcycles, airplanes, ships..., including:

*Referring to the specification by page 5 line 6-13, drawing FIG. 31 and reference paragraph [0052]:*

Sensor(s)/radar(s) or detectable devices equipping in the front (top) of vehicle and at its rear (top) part for detecting at a distance between two vehicles or obstruction, radar(s) sending information to switch braking unit on to brake the car automatically to stop its running once obstruction being detected,

*Referring to the specification by page 11 line 16-19 and reference paragraph [0075]:*

and a (third) radar/sensor equipping in the front of car to detect to sound sonorous

alarm or recorded message to driver at the earliest among other radars once obstruction detected by this radar, driver lowering car speed to avert automatic braking, of automatic voice sound.

## Claim 2

*Referring to the specification by page 2 line 3-5, page 12 line 11-22, drawing FIG. 31-32 and reference paragraph [0007], [0078]:*

What I claim as my invention is : Detectable automatic braking system equipping in all kinds of motor & engine vehicles, automobiles, cars, trucks, buses, vans, trains, motorcycles, tanks, airplanes, ships..., sensor(s)/radar(s) or detectable devices using to detect and to respond by detected result to braking unit to perform automatic braking action, including:

*Referring to the specification by page 10 line 9-27, drawing FIG. 35-40 and reference paragraph [0071], [0072]:*

Braking by pressing or pulling function, new pedals, rubber boot, safety covers, braking positions against extra brake outlets, automatic braking pedals for proper automatic braking use without causing movement of vehicle pedal, using their main parts wherein or movement of any other equipments, instruments having braking effect; using movement of force by motor, by air, by wind, by spring, by energy, of air hydraulic/oxygen (unit), of air/liquid pump, of cylinder as nut & piston as bolt with induction coils..., braking objects

including wheels, spindle, axis, rod, oscillator moving frame, bracket drive and any other objects with same effect, using sensors or any other wire/wireless detectable devices; radars, infrared (detector) lenses, detectors, electronic eyes, lighting sensors, motion sensor detectors, sensor video cameras..., having heating effect against snow, accessories.

*Referring to the specification by page 5 line 22-26, page 6 line 1-4 drawing FIG. 1-2, 32 and reference paragraph [0054]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts braking motor rotating triangle wheel to its edge point pressing at the opposite side of upper pedal to brake, braking locked by iron switches of motor to its inner triangle wheel, brake released by switch device and spring force, of triangle wheel structure.

*Referring to the specification by page 6 line 5-11, drawing FIG. 3-5 and reference paragraph [0055]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts braking motor rotating triangle wheel to its edge point pressing at the opposite side of upper pedal to brake, braking locked by lock device of motor to bracket arm of triangle wheel, brake released by driver's button and spring force, of triangle wheel structure Duo.

*Referring to the specification by page 6 line 12-19, drawing FIG. 6-10 and reference paragraph*

[0056]:

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts braking motor rotating triangle wheel to its edge point pressing at the opposite side of upper pedal to brake, braking locked by lock device of motor to bracket arm of wheel, brake released by driver's button and rewind spring or using double spinning motor, of triangle wheel structure Du.

*Referring to the specification by page 6 line 20-27, page 7 line 1, drawing FIG. 11-12 and reference paragraph [0057]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis fixing between center and rim of a round wheel, rotating at wheel summit pushing on pedal part to brake, braking locked by lock device of motor to bracket arm of wheel, brake released by driver's button and rewind spring or using double spinning motor, of round wheel structure Duo-A.

*Referring to the specification by page 7 line 2-10, drawing FIG. 13-14 and reference paragraph [0058]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis fixing between center and rim of a round wheel, rotating at wheel summit pushing on pedal part to brake, braking locked by lock devices of motor to its inner wheel, brake released

by driver's contact and spring force, of round wheel structure Duo-a.

*Referring to the specification by page 7 line 11-18, drawing FIG. 15-16 and reference paragraph [0059]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor; its toothed spindle engaging through gear-nut of frame screwing out pressing on pedal part to brake, braking locked by lock device, released by driver's button and slotted spindle spring force or spring linked to frame, of screw & unscrew structure Duo-B.

*Referring to the specification by page 7 line 19-27, drawing FIG. 17-18 and reference paragraph [0060]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its axis engaging a tube outlet of frame with grooved end part rotated by a gear of motor, moving axis pressing on pedal part to brake, braking locked by lock device, released by driver's button and spring, of axis-gear structure Duo-C.

*Referring to the specification by page 8 line 1-9, drawing FIG. 19-20 and reference paragraph [0061]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts brake motor, its

axis fixing between center and rim of a round wheel with connecting rod, pressing to an extra outlet built from brake original booster/master cylinder to brake, braking locked by lock device and released by driver's button using revert spring force at back spin, of extra outlet structure Duo-D.

*Referring to the specification by page 8 line 10-17, drawing FIG. 21-22 and reference paragraph [0062]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts oscillator moving the frame, on which an extra outlet with hose, connecting rod kit in air releasing spring unit placing with ball bearing centered to a wheel, pressing to a rubber cover wheel manufactured as a part of double pulley rotated by car engine to brake, braking locked by lock device, released by driver's contact, of moving frame structure Duo-E.

*Referring to the specification by page 8 line 18-24, drawing FIG. 23-24 and reference paragraph [0063]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to drive a rectangular bracket pressing on pedal part to brake, braking locked by lock device, released by driver's button and spring force, of bracket drive structure Duo-F.

*Referring to the specification by page 8 line 25-27, page 9 line 1-3, drawing FIG. 25-26 and*



*reference paragraph [0064]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to rotate its bar pressing on pedal part to brake, inner wheel locked by lock device inside motor during braking, released by driver's button and rewind spring, of direct spin structure Duo-G.

*Referring to the specification by page 9 line 4-9, drawing FIG. 27-28 and reference paragraph [0065]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to rotate its oval wheel pressing on pedal part to brake, wheel locked by lock device, released by driver's button and rewind spring, of oval wheel structure Duo-H.

*Referring to the specification by page 9 line 10-16, drawing FIG. 29-30 and reference paragraph [0066]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts motor to rotate its hexagonal wheel pressing on pedal part to brake, inner wheel locked by lock device inside motor during braking, released by driver's button and rewind spring, of hexagonal wheel structure Duo-I.

*Referring to the specification by page 10 line 1-4 and reference paragraph [0069]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, sensor(s)/radar(s) or detectable device(s) automatically reacts both functioning of motor braking and pressing button standby of mini-motor which will rotate to draw lock device resulting from earlier pressing action releasing the brake automatically just after radar(s) detecting free, of automatic releasing process.

*Referring to the specification by page 9 line 20-26, drawing FIG. 9, 20, 38 and reference paragraph [0068]:*

Detectable automatic braking system referring to claim 2, wherein brake motor be fixed between supporting springs, appropriate motor rotating at a speed to brake a car fast enough to stop its running, if using motor spinning at both sides: one side to brake and the other side to release at low speed replacing spring force, in which switch turning brake motor off prior to braking and locking, lock; pushing a bracket over edge point of a bar/rod under spring force be blockade in device and releasing by cable drawing opposite side of rod, of lock device.

*Referring to the specification by page 11 line 6-11, drawing FIG. 42 and reference paragraph [0074]:*

Detectable automatic braking system referring to claim 2, wherein automatic water switch equipped to be connected by raining water between electric wires to turn on second sensor in the front of car for detecting at a longer distance to earlier stop car running on wet, drying water by wind to extinguish the function of second sensor/radar after raining over, of

automatic water switch.

*Referring to the specification by page 11 line 20-25 and reference paragraph [0076]:*

Detectable automatic braking system referring to claim 2, wherein once obstruction being detected, the third sensor/radar automatically reacts both motor braking and mini-motor drawing to unlock lock device to brake and to release while radar(s) detecting free to lower car speed safely at a longer distance, or using a second braking unit without lock for third sensor/radar, in which a revert timer be installed to switch off third sensor/radar for certain minutes letting cars approach closer during heavy traffic, of automatic lower speed system.

*Referring to the specification by page 11 line 1-5, drawing FIG. 32, 34 and reference paragraph [0073]:*

Detectable automatic braking system referring to claim 2, wherein color signal sonorous lamp or recorded message being “on” showing to driver while entire braking system being “off”, driver may switch off the entire system by a driver’s contact when necessary or driver finding impossible to balance his car on ice-covered road if braking operating, in which installing a thermostat to disconnect color signal sonorous lamp in winter snow, of automatic safety system.

*Referring to the specification by page 13 line 1-6, and reference paragraph [0080]:*

Detectable automatic braking system referring to claim 1 & 2 and Automatic stop lamp

system, Detectable automatic (alarm) systems in claim 3 wherein the original elements, composition, function, structures, process of making, contents, illustrations, installation, of the invention in these documents, any other structures, modifications, replacement of parts assembling to make up the same systems or to perform similar devices referring to their original fundamentals to the same effect and combining the invention with any other devices or systems using other names are in the scope of the protection of the invention, the invention be used everywhere.

### Claim 3

*Referring to the specification by page 12 line 23-28, drawing FIG. 43 and reference paragraph [0079]:*

What I claim as my invention is : Automatic stop lamp system for traffic light including:

Extra lamp(s) equipped for traffic light at a position to focus its beam at lighting zone limit on red to stop cars advancing on red that its beam has capacity to react function of Detectable automatic braking system on sensor(s)/radar(s) of front cars,

*Referring to the specification by page 11 line 26, page 12 line 1-2 and reference paragraph [0077]:*

and Detectable automatic alarm system using for all kinds of motor and engine vehicles, automobiles, cars, trucks, buses, vans, trains, motorcycles, airplanes, ships...

including:

*Referring to the specification by page 12 line 7-10 and reference paragraph [0077]:*

Small sensor(s)/radar(s) or detectable devices equipping at both sides of a car to sound sonorous alarm or recorded message to driver, indicator showing color signal lamp: right or left side be detected once running cars extremely approaching each other,

*Referring to the specification by page 12 line 3-6 and reference paragraph [0077]:*

and extra sensors/radars or detectable devices equipping on right & left mirrors of cars for back detecting during turning, sonorous (signal) alarm or voice sounding to driver (on indicator) if rear car being detected by radar at a distance while signal lamp being on.

(K) Evidence appendix page(s): "none".

(L) Related proceedings appendix page(s): "none".